ECONOMIC obstacles also blocked the professional development of medicine in the nineteenth century. Medical practice offered too small a financial return for many doctors to invest in a lengthy professional education or for state legislatures to require one. Only in part were the meager economic rewards the result of competition with lay practitioners. The more fundamental reason was that the market for physicians' services was limited by economic conditions that encouraged most families to care for themselves. These conditions are typical of preindustrial societies; they arise from the low level of real incomes and the geography of rural life. As these conditions changed in the nineteenth century, the economic opportunities of the medical profession expanded dramatically.

In early American society, medicine was relatively insignificant as an economic institution. Insofar as care of the sick remained within the family and communal circle, it was not a commodity: It had no price in money and was not "produced" for exchange, as were the trained skills and services of doctors. But when people in sickness and distress resorted to physicians, paid for hospital care, or bought patent medicines instead of preparing their own remedies, medical care passed
from the household into the market. The shift of medical care into the market altered the social and economic relations of illness, yet the rule of market forces could never be complete. The public, as well as physicians, resisted treating medicine purely as a commodity and giving free rein to commercial impulses. And so the social history of medicine in the nineteenth century is a history of both the extension of the medical market and its restriction.

Nineteenth-century society, Karl Polanyi has written, was governed by just such a "double movement": The market expanded continuously, reaching into almost every sphere of social life, but was met by a countermovement restraining its action. On one side, the principles of economic liberalism called for the release of the market from all constraint. On the other, the forces of "social protectionism" attempted to curb the devastating effects of the market on traditional institutions, nature, and even the economic system itself.

These two political responses had their counterparts in medicine. The advocates of economic liberalism believed that in the care of the sick, as in other activities, private choice should prevail—hence their support for the abolition of all medical licensing. They thought people should be able to contract for treatment with whomever they wished; the market, in other words, could best regulate itself. On the opposing side of the issue, seeking protection from an unconstrained market, medical societies tried to limit entry into practice and commercial behavior, like price cutting and advertising. The countermovement was also evident in medical aid to the indigent and, after the turn of the century, government and professional regulation of the drug industry. In different ways, professionalism, charity, and government intervention were efforts to modify the action of the market, without abolishing it entirely.

THE EMERGING MARKET BEFORE THE CIVIL WAR

In one respect, the commercial nature of professional practice was more forthrightly acknowledged in America than in England. Under an ancient legal fiction, English law regarded the services of physicians as wholly philanthropic. While surgeons and apothecaries could sue for their fees, physicians could not. Similarly, the low-ranking English attorneys could sue clients for payment, but the elite barristers were pre-
sumed to be above material motives. Like the gradations of status among practitioners, these presumptions never successfully crossed the Atlantic. The only doctors ever barred from suing for fees in the United States were unlicensed practitioners. To be placed outside the market was an honor in an aristocratic culture, but a penalty in a democratic and commercial one.

In the late eighteenth and early nineteenth centuries, the state relinquished control over the market for professional services in what was perhaps the most crucial area—the determination of professional fees. Before the rise of laissez faire ideology in the nineteenth century, government played an active, explicit, and direct role in economic life that included the regulation of prices. In 1753 in Massachusetts the charging of extortionate prices was made punishable by law, and in 1759 the Virginia Assembly passed the first of several medical practice acts specifically providing for judicial action against "gripping and avaricious" doctors levying exorbitant charges. In 1756, the House of Burgesses enacted a lengthy fee schedule for physicians. Whereas later schedules consisting of minimum fees would be issued by medical societies hoping to prevent price cutting, the earliest consisted of maximum fees aimed at preventing price gouging. Yet state determination of medical prices was short-lived. In 1766 the Chief Justice of Massachusetts ruled that "Travel for Physicians, their Drugs and Attendance have as fixed a Price as Goods sold by a Shopkeeper," but this decision was reversed four years later when a physician was permitted to sue in quantum meruit (for the reasonable value of his services). State determination of lawyers' fees eroded more slowly, the last traces finally disappearing around 1850. The price-setting mechanism shifted from law and custom to contract.

Thus the expansion of market forces in medicine originated in diminished state involvement as well as the attenuated role of the household in the treatment of the sick. In the mid-nineteenth century, particularly after the collapse of licensure in the 1830s and 1840s, the state had almost nothing to do with the private transactions between medical practitioners and their patients, except insofar as it guaranteed the sanctity of contracts and provided a means for determining and redressing negligence (malpractice). Some communities paid for medical treatment of the poor and maintained hospitals and pesthouses for contagious disease; some states gave small subsidies to medical schools, and by 1860 all the older states had constructed at least one mental asylum. The federal government maintained a limited system of compulsory hospital insurance for merchant seamen.
But these functions were the extent of state intervention in the economics of medicine before the Civil War. Medical societies tried to assume some functions the state had abandoned. "The law nowhere settles the precise value of professional opinion or advice," noted an article in the *New England Journal of Medicine and Surgery* in 1825. "A fee table settles this . . . . Yet the fee bills often went unobserved and had, as one writer put it, "little importance as authorities." A Philadelphia journal, publishing a fee schedule of the local College of Physicians in 1866, noted that this would be the first time most practitioners in the city had ever seen it, as charges had "not been guided by any fee-bill" at all. "Like literary labor," the journal observed, "medical attendance is worth in the market what it will bring."

Most physicians were paid by a fee per service or a fee per case. Some were retained for a fixed fee per annum to provide all needed care to a family, a plantation, or the indigent members of a community. Called "contract practice," this method—actually a primitive form of insurance—was frowned upon by many doctors, who believed they were exploited under the system because of the unlimited services they might be asked to provide. Indeed, such arrangements did place the entire burden of risk on the individual physician; the existence of such contracts testifies to the weak bargaining position of many doctors. However, despite its name, contract practice was no more or less contractual than other forms; the contract was just explicit, rather than implied. The legal system presumed a contract between doctor and patient (or someone acting on the patient's behalf) even where none was expressly made.

Much medical care was provided on credit. Physicians tried to collect their fees quarterly or annually, but they lost a substantial portion of their income through unpaid bills. The credit system, like contract practice, was a source of much irritation to doctors, but they were in no position to eliminate it. As probate records for New England doctors in the early 1800s indicate, many were enveloped in a tangled web of debt and credit relationships until their deaths. Practitioners in New England in the 1830s rarely received more than $500 a year in gross income. Much of this was paid in kind rather than money.

The supply of physicians in the early and mid-nineteenth century was unrestricted by significant institutional barriers to entry. Because of the proliferation of medical schools, offering easy terms and quick degrees, the cost of medical education, in both money and time, was kept relatively low. Nor was an education beyond an apprenticeship always necessary. In five New England counties during the period from 1790 to
the proportion of medical school graduates among practicing physicians ranged from 20 to 35 percent. In eastern Tennessee in 1850, according to a doctor of the era, there were 200 physicians, only 35 of whom (or 17 percent) were graduates of a school; 42 other practitioners claimed to have taken a course of lectures. The total investment necessary to enter medical practice in 1850, including direct expenses and opportunity costs, probably ranged between $250 and $1,250, depending on the degree of schooling. By contrast, the cost of establishing a farm in the West during the same period was likely to be larger, in the range of $1,000 to $2,000. And since neither licensing requirements nor a limit on the number of places in medical schools impeded entry into medicine, the supply of practitioners grew. Between 1790 and 1850, the number of physicians in the United States rose from five to forty thousand, a rate of growth faster than that of the population. As a result, the number of people per doctor dropped from about 950 to 50 during the same period. Doctors complained continually about overcrowding in the profession.

As a result of unrestricted entry into practice, doctors were apparently well distributed through rural areas. Physicians, even in surplus quantity, were available to the most remote New England towns, but the competition was keen and not always amicable. The most common problems of new practice were the dearth of patients and lack of rapport with established doctors. This pattern was repeated elsewhere. Preceptors often suggested to their students that they seek "stands" (practices) in the frontier communities in the West and South, but according to a recent study, "Wherever and whenever they went, acceptable stands were difficult to find." In 1857 a young Vermont doctor thinking of settling in Georgia was told that the "only way to get practice would be to undress those already practicing," another, who graduated from Dartmouth in 1839, moved to a small village in Virginia because the best Virginia locations were already taken.

Had educational and licensing requirements for medicine been more rigorous, physicians would undoubtedly have been more scarce, especially in rural areas. The money to be made in small towns and rural communities was too meager to recoup the investment in a lengthy education. The limited training of nineteenth-century doctors was not so much an expression of ignorance as it was a response to economic realities—the limits of effective demand.
Low use of professional services was the fundamental constraint on medicine in early American society. Many physicians found it extremely difficult to support themselves solely from medical practice. A second occupation, usually farming, often proved necessary. "The resources of a farm," Benjamin Rush observed in his advice to medical students, "will prevent your cherishing, even for a moment, an impious wish for the prevalence of sickness in your neighborhood." Later, many doctors, especially in small town and frontier areas, ran drug stores; and druggists, if they were not previously doctors, often took up medical practice as part of their work. (One historian records a doctor who, "not satisfied with his practice, robbed stagecoaches on the side" before he was captured in 1855 and sent to prison. But he may have been looking for excitement.) Starting out in practice frequently meant protracted underemployment and hardship. "The fact is," stated the Boston Medical and Surgical Journal in 1836, "there are dozens of doctors in all great towns, who scarcely see a patient from Christmas-time to Christmas-coming."

This pattern, Ivan Waddington has shown, is typical of medical practice in preindustrial societies. In eighteenth- and early nineteenth-century France and England, as in the United States, the demand for professional advice was limited by the inability of the great mass of the population to afford services and the persistence of traditional and domestic forms of treatment. Doctors had difficulty setting themselves up in practice and many abandoned the occupation entirely. The structural problem everywhere was the same: Given the limited extent of the market, physicians could not lucratively monopolize the medical work available in the society. In Europe, a small elite of physicians confined itself to practice among the rich and separated itself from other practitioners. This "status professionalism" had broken down in America. The more numerous American physicians, scattered among small communities or overcrowded in the towns, struggled on under modest circumstances.

The inadequacy of local markets stemmed partly from Americans' ingrained self-reliance, their disbelief in the value of professional medicine, and the ease with which competitors entered the field. Some may wish to argue that all these factors were ultimately reducible to the ineffectiveness of contemporary therapeutics. It is not clear, however, that
doctors’ economic problems would have been resolved if they had the scientific knowledge of 1840 under the economic and cultural conditions of 1850 or even 1880. I leave aside, for the moment, the question of whether such knowledge would have been as widely recognized as authoritative. The basic problem would have remained the same: Most families could not afford to rely on physicians’ services.

The heart of the economic problem was not that the physicians’ fees were so high, but that the real price of medical care was so much higher than their fees. The price of medical services consists not only of the direct price (the physician’s fee, the charge for a hospital room) but also of the indirect price—the cost of transportation (if the patient travels to the doctor or sends another person to summon one) and the foregone value of the time taken to obtain medical care. In most discussions, only

it the early and mid-nineteenth century, the indirect price of medical services probably outweighed the direct price. Dispersed in a heavily rural society, lacking modern transportation, the great majority of the population was effectively cut off from ordinary recourse to physicians because of the prohibitive opportunity cost of travel. For a farmer, a trip of ten miles into town could mean an entire day’s lost work. Contemporary observers and historians have continually drawn attention to the isolation of rural life and most small communities before the twentieth century. This was as much an economic as a psychological fact.

The self-sufficiency of the household in early American society was never complete, but it was quite extensive, particularly in the frontier, back-country, and rural communities where most Americans lived. Families produced not only food for their own consumption, but also clothes, furniture, household utensils, farm implements, building materials, and many other necessities. After 1850, household manufacturers rapidly declined in New England; according to Bolla Traven, the transition to shop and factory-made goods there was nearly accomplished by 1830. Elsewhere it took longer; the presence of a large frontier population through mid-century meant that the transition was “always taking place but never quite completed” in the country as a whole. “As soon as manufactured goods could be supplied from the sale or barter of the products of the farm, the home gave up its system of manufacturing, which had been largely carried on more through necessity than desire. Generally speaking, by 1860 the factory, through the aid of improved means of transportation, was able to supply the needs of the people for manufactured commodities.”

A similar, but slower transition from the household to the market
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economy took place in the production of personal services. For rural families, the time it took to procure specialized services outside the household greatly increased their cost. The growth of cities, the advent of modern means of transportation, and the building of hard roads radically altered the structure of prices. By reducing the opportunity and transportation costs for services, urbanization and improved transportation generally promoted the substitution of paid, specialized labor for the unpaid, unspecialized labor of the household or local community. Getting a haircut, visiting a prostitute, and consulting a doctor all became, on the average, less expensive because of reduced costs of time.

Data contained in nineteenth-century fee tables provide a basis for estimating the relation between direct and indirect prices. The fee bills published by medical societies may be poor indicators of average charges, but they are probably reliable as indicators of the relative value of different services. In addition to a basic fee for a physician visit, almost all nineteenth-century fee schedules list a charge per mile if the doctor needed to travel out of town. The charge for mileage represents an estimate of the foregone value to the doctor of the time spent in traveling, plus the expense of his personal transportation (a horse, or horse and buggy). We may assume that time had about the same value for patients as for their physicians. (This assumption probably holds for the nineteenth century, though it would be untenable today because of the high median income of physicians relative to the population at large.) Thus the monetary value doctors assigned to travel may give us an estimate of the indirect prices faced by patients when they called on the doctor.

Nineteenth-century fee bills vary from one region to another, especially between urban and rural areas, but the importance of indirect prices is evident everywhere. A few examples will suffice to make the point. In 1843 in Addison County, Vermont, the fee for each visit by a doctor was 50 cents at less than half a mile; $1.00 between a half mile and two miles; $1.50 between two and four miles; $2.50 between four and six miles and so on. In Mississippi the same year, according to a report in a Boston journal, a visit cost $1, while the charge for travel was $1 per mile during the day ($2 at night).24 These ratios between charges for service and mileage are typical. Even at relatively short distances, the share of the total price due to traveling and opportunity costs exceeded the physician’s ordinary fee; at a distance of five or ten miles, the mileage charges typically amounted to four or five times the basic fee for a visit.25

For major services, the indirect price became less significant; the fee for serious operations could overshadow the charge for mileage. So indi-
rect prices especially limited use of physicians' services in routine illness. In rural areas, many families would not think of calling in a doctor except under the most grave conditions.

When patients were treated at home, before the advent of the telephone, the doctor had to be summoned in person. So the costs of travel were often doubled, as two people, the physician and an emissary, had to make the trip back and forth. Furthermore, since the doctor was often out on calls, there was no guarantee that he would be found when someone went in search of him. A doctor from the District of Columbia, observing that no physician in Washington during the 1840s or 1850s kept regular office hours, later recalled, "Patients and other persons wishing to consult [a doctor] waited at irregular times for indefinite periods, or went away and came back, or followed in pursuit in the direction last seen, and sometimes waited at houses to which it was known the doctor would come. . . . The only certain time at which one could be found was when [one was] in bed and had not instructed the servant to deny the fact."  

Before the construction of hard roads, according to one Illinois practitioner, "The doctor did not often go more than ten miles from his home." 27 Within that radius were a limited number of patients. The size of the market might be enough to keep village practitioners hard at work, but not enough to enable them to set the terms of business and limit their practice to an office. The doctor of the early and mid-nineteenth century passed much of his day (and many of his nights) traveling along back country roads. Autobiographies of nineteenth-century doctors dwell on these long periods of solitude and the weariness that often came over them on their rides. As one doctor put it, he spent "half of his life in the mud and the other half in the dust." 28 In several nineteenth-century fee schedules, a fee for an entire day's attendance by a doctor is given as $5 or $10. (The average daily income for doctors, depending on locality, probably fell within or below this range.) These same fee schedules list the charge for an office visit at $1.00 or $1.50. 29 It seems likely, therefore, that doctors in the early and mid-1800s were seeing no more than an average of five to seven patients a day in urban areas perhaps more, in rural areas less.  

The high costs of travel contributed to the individualism and isolation of medical practice. The country practitioner had to rely on his own devices; consultations were not readily available. Practitioners might be long out of touch with new developments; or if apprised of them, completely on their own in carrying them out. "The first appendectomy many a doctor saw was the first he himself performed after this..."  

as manufactured goods could be supplied from the sale or barter of the products of the farm, the home gave up its system of manufacturing, which had been largely carried on more through necessity than desire. Generally speaking, by 1860 the factory, through the aid of improved means of transportation, was able to supply the needs of the people for manufactured commodities. 30  

A similar, but slower transition from the household to the market...
operation came into use in the late 1880s and the 1890s," remarks a historian of medicine in Oregon. As more Americans and more physicians began to live in larger towns and cities, they came in closer contact with both their patients and their colleagues. The proportion of Americans living in towns of 2,500 or more increased from just 6 percent in 1800 to 15 percent by 1850; it then jumped to 37 percent in 1890 and 46 percent in 1910. In the late nineteenth century, doctors moved to cities even more rapidly than the population as a whole. Between 1870 and 1910, the number of physicians per 100,000 people grew from 177 to 241 in the large cities, while it fell from 80 to 152 in the rest of the country—this during a time when the overall ratio of doctors to population was still increasing.

The rise of cities was brought about partly by the building of canals and the development of steamboats and railroads. This "transportation revolution" widened the markets of cities and enabled the larger and stronger producers to penetrate what were previously fragmented local markets. On a more modest scale, the railroads and the telegraph helped widen doctors' markets by expanding the territory they could cover. This proved a boon especially to consultants; one mentions logging ten thousand miles of railroad travel in a half year. If the railroad did not take physicians all the way to their destination, a carriage might be waiting for them when they alighted. Doctors were such frequent users of railroads that some treated injuries to railroad workers in exchange for a travel pass. The railroads also brought in patients from a distance and naturally doctors wanted to be in towns along the routes to enjoy the benefits. In cities, they had a similar incentive to locate along the routes followed by streetcars.

The transportation revolution of the nineteenth century has generally been considered from the standpoint of regional and long-distance flows of commodities, information, and even disease. But there was also a revolution in local travel. One historian remarks, "The automobile and the telephone did not greatly lower the cost of transportation as had been the case with the railroad in the 19th century." Though this may be true of inter-city transportation between two points along main routes, it does not apply to local travel.

The telephone made it less costly to reach a physician by greatly reducing the time formerly spent tracking down the peripatetic practitioner on foot. Phones first became available in the late 1870s. Curiously, the first rudimentary telephone exchange on record, built in 1877, connected the Capital Avenue Drugstore in Hartford, Connecticut, with twenty-one local doctors. (Drugstores had often served as message
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centers for physicians.) The first telephone line in Rochester, Minneso-
ta, set up in December 1879, connected the farmhouse of Dr. William
Worrall Mayo with Geisinger and Newton's drugstore downtown. As
telephones became more widespread, families could, of course, keep
continually in touch with the doctor without a visit. In an apt analogy,
one manual for medical practice in 1934 commented that the telephone
had become as necessary to the physician as the stethoscope. As
amobiles, first produced in the 18gos, became more reliable
after the turn of the century, they further reduced time lost in travel.
Doctors were among the earliest to buy cars. Physicians who wrote to
the Journal of the American Medical Association, which published sev-
eral supplements on automobiles between 1906 and 1912, reported that
an auto cut the time required for house calls in half. "It is the same as
if the day had forty-eight hours instead of twenty-four," a doctor from
Iowa rejoiced. Besides making calls in one-half the time," wrote a
physician from Oklahoma, "there is something about the auto that is
infatuating, and the more you ride the more you want to ride." In a
1910 survey of readers that drew 344 replies concerning automobiles,
three out of five doctors said they had increased their income; answer-
ing a slightly different question, four out of five agreed that it "pays to
own a car." The survey asked physicians using either automobiles or
horses to give their annual mileage and costs, including maintenance
and depreciation. The 96 physicians still using horses reported costs
that work out to 13 cents a mile; for the 116 who owned low-priced cars
(under $1,000), the cost per mile was 9.6 cents. It came to 9 cents for
208 doctors who owned cars priced over $1,000. However, the initial
investment in purchasing a car was greater than in buying a horse. To assert that it costs no more to run a car than to keep up a team
is absurd," insisted one physician. "But if one considers the time saved
on the road, and the consequent additional business made possible, to
say nothing of the lessened discomfort, a busy practitioner will find a
large balance on the side of the motor car." Besides saving time, the automobile, like the railroad, widened the
doctors' market geographically. In 1912, a Chicago physician noted that
the residential mobility of patients required doctors to drive a car. "Chi-
cago today is a city of flats (apartments), and people move so, that a pa-
tient living within a block today may be living five miles away next
month. It is impossible to hold one's business unless one can answer calls
quickly, and this is impossible without a motor car. I have not only held
my own, but have increased my business by making distant calls
promptly ... (averaging) about 75 miles a day ..."
Just as telephones, automobiles, and hard roads enabled physicians to cut down on traveling costs, so they enabled patients to do the same in visiting doctors’ offices. Reduced traveling time in both directions cut the cost of medical care and raised the supply of physicians’ services, by increasing the proportion of doctors’ time available for contact with patients.

The reduction of indirect prices from the local transportation revolution and the rise of cities put medical care within the income range of more people; in this way, it had the same effect as cost reductions from new technology in manufacturing. Underlying the shift from household to market in manufactured goods were radical changes in productivity that drastically altered relative prices. In the production of textiles, for example, family manufacture was virtually eliminated in a remarkably short period. In 1815 the power loom was introduced in Massachusetts; by 1830 the price of ordinary brown shirting had fallen from 42 to 7.5 cents a yard. A woman at home could weave 4 yards of the cloth in a day; one worker in a factory, tending several power looms, could turn out 90 to 160 yards daily. There was no way women at home could compete.

In medicine, no radical or sudden change in technology drastically cut the cost of producing physicians’ services; there was only the gradual erosion of indirect prices that came from more rapid transportation and more concentrated urban life. Though difficult to measure, the “productivity” of physicians (measured simply as services to patients per day) significantly increased. I mentioned before that physicians probably averaged no more than five to seven patients a day in the mid-nineteenth century. In contrast, by the early 1840s, the average load of general practitioners, rural and urban, was about eighteen to twenty-two patients daily. Such figures suggest a gain in productivity for practicing doctors on the order of 300 percent. For surgeons, the gains have been much larger, considering the infrequency of surgery before antisepsis.

The local transportation revolution also improved the efficacy of treatment by reducing the isolation of medical practice. It made possible more rapid intervention in emergencies, and the ambulance was meant to accelerate that process. Reduced distances may also have had a psychological effect: Increasingly, one came to expect the doctor’s intervention. Improved access ultimately brought greater dependance.
A second development also contributed to the saving of professional time and the expansion of professional opportunities. This was the growing concentration of patients in institutions. I have already mentioned that the development of large hospitals in Paris in the early nineteenth century was a factor in the emergence of modern clinical investigation. For both economic and scientific reasons, the rise of hospitals was a key precondition for the formation of a sovereign profession. In the case of psychiatry, hospitals constituted the basic framework of professionalism. There was no private practice in psychiatry in the early nineteenth century. The mental asylum created not only a new institutional market for doctors, but also a new sphere in which they could exercise authority.

In the early nineteenth century, there was little demand for the services of general hospitals in America. Almost no one who had a choice sought hospital care. Hospitals were regarded with dread, and rightly so. They were dangerous places; when sick, people were safer at home. The few who became patients went into hospitals because of special circumstances, which generally had to do with isolation of one kind or another from the networks of familial assistance. They might be seamen in a strange port, travelers, homeless paupers, or the solitary aged—those who, traveling or destitute, were unlucky enough to fall sick without family, friends, or servants to care for them. Isolation was also related, but in a converse fashion, to the kindred institutions of pesthouse and asylum. There, isolation (or its opposite) from the community was the intent rather than the occasion of removal to an institution.

The rise of mental hospitals followed closely upon the rise of cities in America. In the colonial period, the mentally ill, along with other classes of dependents, were treated as a local responsibility, primarily within their own or other families. The growth of cities in the early nineteenth century changed the character of the problem. An increase in scale brought higher concentrations of the insane, the breakdown of informal controls, and a greater demand for order and security. The first of the new institutions for the mentally ill in America were philanthropic. Originally intended to serve the entire community, they gradually became oriented to serve the more affluent, as their resources proved inadequate to make available free care to the indigent. Beginning in the 1820s, some purely proprietary asylums were also opened for the insane from prosperous families. In the late 1820s, studies of public wel-
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fare recommended a general shift from "outdoor" relief (in homes) to "indoor" relief (in institutions); the expansion of asylums under state authority began in the next decade. By the 1840s a psychiatric profession had begun to appear. As Gerald Grob suggests, the institutions played a greater role in shaping psychiatry in the nineteenth century than psychiatry played in shaping the institutions.\(^4\)

The explanation for the emergence of specialized institutions for the mentally ill is not, of course, strictly demographic. The need for urban security might have been met by other means, such as the expansion of almshouses. But the changes in material life in the late eighteenth and early nineteenth centuries took place against the backdrop of greater optimism about the plasticity of human nature. During the French Revolution, reforms introduced into the treatment of the mentally ill expressed a new conviction that the insane could be cured rather than simply restrained. The new "moral treatment" of Pinel in France was introduced independently by Tuke in England. Americans were acquainted with these efforts, and the broader religious and ideological currents in American society favored the same kind of positive effort to cure. Although the new treatment in all three countries was as much moral as medical, the leading figures were physicians.\(^5\)

For American doctors, mental asylums offered important opportunities. Superintendents received between $1,000 and $2,000 a year.\(^6\) Moreover, asylums offered the physician the chance to exercise judgment and control in a sphere where there was relatively little resistance to his authority. Some of the superintendents also used their positions as platforms from which they lectured the public on the relationship of mental illness, vice, and the disorders of modern civilization. Although, by the 1840s, most superintendents were doctors, they kept aloof from other physicians. And, increasingly, as mental hospitals shifted from therapeutic to custodial functions, psychiatry became primarily an administrative rather than a medical specialty.\(^7\)

Although the earliest general hospitals predate mental asylums, the period of most rapid growth occurred about a half century later. In 1873 a government survey counted fewer than 200 hospitals. By 1910 over four thousand were counted, and by 1920 more than six thousand.\(^8\) Changes in both the family and the hospital affected their relative capacity to manage treatment of the sick. The separation of work from residence made it more difficult to attend the sick at home. With industrialization and high geographic mobility in America, the conjugal family also became more isolated from the threads of kinship, and so fewer relatives were close by in case of illness. To say, however, that there was a shift from an extended to a nuclear family in the nineteenth cen-
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tury may exaggerate the degree of change. Average household size de-
clined from 5.7 persons in 1790 to 4.8 in 1900. On the whole, family structure seems to have had a "modern" shape in America even before industrialization. But significant change did take place in the size of upper-class households. In 1790 in Salem, Massachusetts, the households of merchants averaged 9.8 persons, master carpenters 6.7, and laborers 5.4. By the end of the nineteenth century, families in different classes were equally small. Well-to-do households diminished in size because of the decline in the number of domestic servants as well as children. Also, urban growth led to higher property values, forcing many families to abandon private houses for apartments in multi-family dwellings, which limited their ability to set aside rooms for sickness or childbirth.

A 1913 analysis of the decline of home care of the sick noted, "Fewer families occupy a single dwelling, and the tiny flat or contracted apartment no longer is sufficient to accommodate sick members of the family. ... The sick are better cared for [in hospitals] with less waste of energy, and their presence in the home does not interrupt the occupations and exhaust the means of wage earners ... The day of the general home care of the sick can never return."

Industrialization and urban life also brought an increase in the number of unattached individuals living alone in cities. In Boston between 1880 and 1900, boarding and lodging house keepers rose in number from 601 to 1,570, almost double the rate of population growth for the city. An array of new establishments—laundries, eating places, tailors—sprang up to meet the needs of this class. The hospital, as Morris Vogel points out, was one of these "corollary" institutions. In England and America, many of the first hospitals to care for private patients were built with lodgers and apartment-house dwellers especially in mind.

All these changes meant less labor power and physical space at home to handle the acutely ill. Talcott Parsons and Reuben Fox have further speculated that the modern urban family lost some of its emotional capacity to deal with illness. They argue that the small size and increased isolation of the conjugal family make it peculiarly vulnerable to strains created by illness: One member of the family cannot be attended at home without draining emotional support and attention from the others. When one becomes ill, others are often likely to be overly indulgent, inviting perpetuation of sickness, or possibly overly severe, disrupting recovery. Illness, they suggest, has become an increasingly attractive "semi-legitimate channel" of withdrawal from daily routines. And so the growth of hospitals can be explained as the emergence of an alternative mechanism to handle these motivational problems to encourage recovery and the resumption of normal obligations.
Working-class households did not undergo the changes in size and structure that this line of argument presumes. They were small even before the nineteenth century because of high infant mortality and the early departure of children into the labor force. But the Parsons-Fox hypothesis seems more plausible when restricted to the middle and upper social strata. One newspaper account in 1900, emphasizing that hospitals were "A Boon Not Only to the Poor But to the Well-to-do," describes them as affording "great relief to the family from physical as well as mental strain." Observed a hospital director, "It can be put down as one of the advantages of a hospital that the relatives and friends do not take care of the patients. It is much better for them not to be under the care of anyone who is overconcerned for them."

From the beginning of the industrial era, changes in work and family structure probably created a growing disposition in favor of extra-familial care. However, the dangers of infection in general hospitals led families to manage physical illness at home if they could possibly do so. The reforms in hospital hygiene and the advent of antiseptic surgery both came after the Civil War and probably account for the delay in the growth of general hospitals until after the mental asylum had become widely accepted. General hospitals were also more directly affected by changes in transportation. In an unmechanized rural society, the general hospital is inaccessible in most cases of short-term acute illness, but use of a mental hospital depends less on quick access. Because of its relation to broad cultural concerns over the stability of the social order, the mental asylum has had a different history from the general hospital. The asylum could serve the public functions of the control and confinement of mental disorder when the general hospital was still unsuitable for illnesses of a more purely physical character.

Both institutions relieved the household of obligations that interfered with employment in the market economy. The segregation of sickness and insanity, childbirth and death was part of a rationalization of everyday life—the exclusion from daily experience of disturbances and strains that made difficult participation in the routine of industrial society. The segregation of disorder also reflected the growing tendency to exclude pain from public view. As John Stuart Mill once remarked, "One of the effects of civilization (not to say one of the ingredients in it) is, that the spectacle, and even the very idea of pain, is more and more kept out of the sight of those classes who enjoy in their fullness the benefits of civilization."

Yet this very deep-run current to segregate pain and illness as private events reinforced the desire of more prosperous families to receive physicians in the privacy of their own homes, rather than go to the more
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The different loci of medical care had different moral connotations. Treatment in offices and hospitals was generally regarded as a mark of lower status. It is a measure of the changing position of the profession and medicine's success in overcoming the feelings of delicacy accentuated by the Victorian sensibility that this stigma was gradually overcome. By the turn of the century, the office and the hospital were losing their traditional moral taint, and the home was in decline as a place for physicians' services. Again, economic considerations were partly at work. The telephone made it much easier for patients to see physicians at their offices at a prearranged time, reducing the risk of dropping in while the doctor was out on call; it also made office practice more attractive to doctors, who could now make orderly appointment hours and see more patients than when relying on an uneven stream, or trickle, to their door. As physicians' incomes rose relative to the population at large, patients had an increased incentive to substitute their own travel time for that of the doctors. The shift from home to office was also encouraged by the growing use of clinical equipment and ancillary personnel. As the doctors' social position rose, they increasingly expected the patient not to waste their time, which had become so much more valuable.

The concentration of patients in hospitals and offices (and the relocation of physicians' offices next to hospitals) added to the effects of urbanization and improved transport. The space in which the physician worked became steadily more compressed. The doctor of the nineteenth century was a local traveler who knew the interior of his patients' homes and private lives more deeply than did others in the community. By the early twentieth century, many physicians went to work at hospitals or offices and had little contact with the homes or living conditions of the patients they treated. These radical changes in the ecology of medical practice enabled physicians to squeeze unproductive time out of their working day. This had obvious advantages. One physician commented in 1899 that "as a matter of dollars and cents I can attend ten patients in a hospital at less cost to myself than I can attend to perhaps three cases outside, because in a few minutes I can go through the whole hospital list, whereas, in the three cases outside, no two of them might be nearer together than two or three miles."

The local transportation revolution, urbanization, and the rise of hospitals widened the medical market and created new opportunities for physicians. Among these was specialization. The division of labor, as Adam Smith pointed out in his key discovery in The Wealth of Nations, varies according to the extent of the market. As the medical market grew, so did the opportunity and the incentive to specialize. Specializa-
tion gives producers partial relief from competition and enables them to take advantage of whatever comparative advantage they may enjoy. The specialist typically gives up those services offering the lowest return and concentrates on those offering the highest. In medicine, these are often services performed in hospitals because of the indirect savings in time to the physician and the standard of higher fees for procedures that are or were at one time complex.

The changing ecology of medical practice thus had tremendous economic significance in enabling physicians to reduce their unit costs, to increase the volume of their practice, and to specialize. But these were not the only effects of changes in the market. The same changes that brought increased opportunities also brought greater competition.

THE MARKET AND PROFESSIONAL AUTONOMY

The expansion of the market made possible a transformation of the profession but did not guarantee it. While demand for services grew, so did the supply of professional time. Not only did doctors continue to become more plentiful, but each doctor represented more medical service as a result of the squeezing of wasted time from the professional working day. Furthermore, midwives and other practitioners who specialized in tasks claimed by physicians could potentially share in the growth of the medical market. The concentration of patients in hospitals might give hospitals control of doctors. Physicians stood to benefit only if they could control the supply of practitioners, the division of labor, and their own relation to organizations.

The effect of improved transportation was also to expose doctors to more competition from nearby colleagues. The practitioner in a small town who formerly enjoyed a monopoly, albeit a small one, now had to worry that his patients might use a practitioner or a hospital in another town. As improvements in transportation and communication put a larger market within reach of the practitioner, they also put the practitioner within reach of competition from his peers and distant institutions.

The same processes were at work throughout the economy in the nineteenth century. Local businessmen continually found their markets invaded by outsiders. The widening of industrial markets brought about by the railroads was analogous to the increased radius of medical practice brought about by railroads, automobiles, and telephones. As
the local businessman struggled to survive the rise of the big corporation, so the small-town general practitioner had to contend with the increased accessibility of the urban specialist and hospital.

The expansion of the market affected the development of medicine in Europe as well as America, but the impact was somewhat different. In England, the rise of a middle-class market for medical care contributed to a decline in the dependence of doctors on aristocratic patrons. "The widening of the market for professional services," writes the S. W. F. Holloway, "had a profound effect upon the relationship between the practitioner and his clients. As the demand for medical care increased, the importance for the doctor's livelihood of any one patient declined. Instead of a small group of wealthy and aristocratic patients, the market now comprised a large and growing section of society. . . . In the eighteenth century the patient was the dominant figure in the relationship; in the nineteenth century the power positions were reversed."

The traditional hierarchy of English medicine broke down in the mid-nineteenth century as a consequence of these economic developments and the impact of new scientific advances that began in France. By the 1830s the leading surgeons were no longer confining themselves to manual operation, but were also practicing as physicians. At the same time, the emergence of concepts of localized pathology and modern techniques of clinical examination made it difficult for physicians to continue refusing to perform any manual procedures. An increasing number of physicians and surgeons began engaging in "general practice" (as it was now being called) among the growing middle classes. The line between these general practitioners and the apothecaries became unclear, especially as apothecaries could now receive a higher education at University College London. In fact, two out of every five members of the College of Surgeons also held a license from the Society of Apothecaries. The preface to a medical directory in 1847 noted that the traditional system of classification had become "almost obsolete." Physicians, surgeons, and apothecaries were "by the force of a public convenience they cannot withstand, being gradually clased into Consulting and General Practitioners." In 1858 Parliament created a single register for all medical practitioners and a council to coordinate all medical education in the United Kingdom. This was the key step in the emergence of an autonomous and united medical profession in Great Britain. American doctors would wait another half century for an analogous breakthrough in medical education and state support.
CHAPTER THREE

The Consolidation of Professional Authority

1850–1930

MOST studies of social mobility follow the movement of individuals or families through the socioeconomic order. They generally take for granted the relative positions of occupations and classes, as if the structure of society remained fixed and only the fate of individuals varied. For many purposes, this is a convenient fiction. But it obscures the movements that classes and occupational groups themselves have made through social hierarchies. These instances of collective social mobility reshape the structure of society and set new terms for the realization of personal ambition. Just as behind the apparently fixed contours of a landscape lie great historic shifts and upheavals in the earth, so behind the seeming permanence of a social order lie the past struggles of classes and other groups negotiating for advantage.

The rise of medicine, and of the professions more generally, represents one of the more striking instances of collective mobility in recent history. The historical success of a profession rests fundamentally on the growth of its particular source of wealth and status—its authority. Acknowledged skills and cultural authority are to the professional classes
what land and capital are to the propertied. They are the means of securing income and power. For any group, the accumulation of authority requires the resolution of at least two distinct problems. One is the internal problem of consensus; the other is the external problem of legitimacy. These are necessary but not sufficient conditions for success. Consensus facilitates the articulation of common interests and the mobilization of group effort, while respect and deference, especially from the more powerful classes, open the way to resources and legally sanctioned privileges.

A profession, as I earlier suggested, differs from other occupations in part by its ability to set its own rules and standards. But it cannot do so unless its members agree, first, on criteria for belonging to the profession and, second, on what its rules and standards ought to be. Before convincing the public and the state of the legitimacy of their claims to self-regulation, physicians had to reach some agreement among themselves. Perhaps the foremost obstacle to the collective authority of the medical profession in mid-nineteenth-century America arose within its ranks. Mutual hostility among practitioners, intense competition, differences in economic interest, and sectarian antagonisms held the medical profession in check. Internally divided, it was incapable of mobilizing its members for collective action or of winning over public opinion.

While individual practitioners enjoyed autonomy, not to say isolation, they prospered—or more likely coped—according to their own wits. The profession of medicine did not endow its members automatically with public respect. In the early nineteenth century, as we have already seen, physicians had failed to establish clear boundaries marking off members of the profession from untrained and "irregular" practitioners. Internecine hatreds were rife. When Samuel Gross, later a famous surgeon, took up practice in the town of Easton, Pennsylvania, in the early 1830s, he found the local practitioners busy with enmity. "Every man seemed to live in and for himself. Hardly any two could be found willing to meet each other in consultation. Jealousy and ill-feeling were the order of the day."

The failure of doctors to establish any effective authority within the profession or in the society at large profoundly affected their relationships with patients. The doctor in America was more a courtier than an autocrat. Arpad Gerster, a scholarly and perceptive young Hungarian physician arriving in New York in the 1870s, was struck by the way American practitioners treated their patients:

As I soon found [he later wrote], physicians in America were more concerned with establishing a feeling of confidence and trust, hence of comfort in patients, they cannot withstand, being gradually classed into Consulting and General Practitioners. 56 In 1858 Parliament created a single register for all medical practitioners and a council to coordinate all medical education in the United Kingdom. This was the key step in the emergence of an autonomous and unified medical profession in Great Britain. American doctors would wait another half century for an analogous breakthrough in medical education and state support.
than were our colleagues abroad. To a great extent, this was a natural conse-
quence of the difference between the status of the physician in the United
States and in Europe. Abroad, the medical degree per se invested the physician
with a social standing and authority unknown in America, where, in 1874, the
meager educational requirements made it easy to secure a diploma after "two
sessions of so many weeks a year." With some exceptions, the rank and file of
the profession were—as far as general education went—little, if any, above the
level of their clientele. And the clientele not only felt this, but knew it. Hence
the medical man had to be more than modest; he had to be circumspect, even
deferential, in facing ignorance, absurd pretensions, and ill manners—
especially where they abounded most, among a certain class of the self-made,
uncultured wealthy.

One way of looking at the changes that took place between the 1870s
and the early 1900s is that the social distance between doctor and pa-
tient increased, while the distance among colleagues diminished as the
profession became more cohesive and uniform. The state, which had
been indifferent to physicians' claims since the Jacksonian era, finally
embraced the profession's definition of a legitimate practitioner. All
these developments reflected a movement toward the strengthening
of professional status and the consolidation of professional authority.

PHYSICIANS AND SOCIAL STRUCTURE IN MID-
NINETEENTH-CENTURY AMERICA

Class

Before the twentieth century, the role of doctor did not confer a clear
and unequivocal class position in American society. There was consider-
able inequality among those who practiced medicine, perhaps as much
as in the communities where they lived. Instead of locating medicine
at a particular point in a hierarchy of occupations, it might be more ac-
curate to say that the inequalities among doctors paralleled the class
structure. To the wealthier families, there corresponded an elite of the
medical profession; to the poor, practitioners of lower status and less
training. The social position of the majority of doctors was not low, but
it was insecure and ambiguous. A physician's standing depended as
much on his family background and the status of his patients as on the
nature of his occupation. Education, too, was a salient though probably
secondary criterion of social distinction (secondary because higher edu-
cation depended on family background). The men at the top of the pro-


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fession had graduated from medical schools—the most prestigious hav-

ing gone to Europe for part of their training—while practitioners in the

lowest ranks were often no more than autodidacts. In the middle were

the rank and file, the great majority of doctors, who had served appren-
ticeships and perhaps taken a course of lectures or a two-term medical
degree, but who had little general education. The transformation the
profession eventually underwent consisted not so much in raising the
status of those at the top, as in raising the middle and eliminating the
bottom altogether. And achieving some uniformity within the profes-
sion helped to make the practice of medicine itself, apart from one's
family origins or clientele, a sufficient condition for high social position.

From the Jacksonian period through the end of the nineteenth centu-
ry, a medical career did not carry the prestige and guaranteed security
it does today. In 1832 J. Marion Sims, who would later become one of
America's foremost surgeons, returned home to his family in South Car-
olina after graduating from college. His mother, who had recently died,
had wanted him to become a clergyman; his father hoped he would be-
come a lawyer. Sims wanted to be neither, and felt that if he had to
take up a profession, medicine would make the fewest demands on his
frail talents. "If I had known this," his father exclaimed in an outburst
that might amuse parents today, "I certainly should not have sent you
to college. . . . it is a profession for which I have the utmost contempt.
There is no science in it. There is no honor to be achieved in it; no repu-
tation to be made." A similar story comes from S. Weir Mitchell, a lead-
ing neurologist and genteel novelist, who, as a young man, first thought
of entering chemical manufacturing. His father, a physician, suggested
commerce, and Mitchell might well have entered an English cousin's
trading firm had not the cousin died in a shipwreck. "After a while my
father more distinctly insisted on a choice, and I at last decided to be
a doctor, much to his disgust." Perhaps both Sims and Mitchell, savoring the irony, embellished their
father's reactions, but the incidents were not implausible. Many people
thought of medicine as an inferior profession, or at least as a career with
inferior prospects. In 1851 a committee of the recently formed Ameri-

can Medical Association (AMA) reported the results of a study it had
made of the careers followed by 12,400 men who had graduated be-
tween 1800 and 1850 from eight leading colleges (Amherst, Brown,
Dartmouth, Hamilton, Harvard, Princeton, Union, and Yale). While 26
percent became clergymen and a similar proportion were thought to
have entered law, under 8 percent became physicians. Furthermore,
the proportion going into medicine was lower among students who
graduated with honors than among students in general. The committee
The Consolidation of Authority 1850-1930

thought these figures indicative of a general distaste for medicine among the "educated talent" of the country. As late as 1870 a medical journal remarked that when a young man of merit and ability chose to become a doctor "the feeling among the majority of his cultivated friends is that he has thrown himself away." This may exaggerate the picture. Physicians were often influential figures in their communities. The elite of the medical profession may well have had more civic importance in the earlier periods of American history than it does today. Of the first one hundred members of the Medical Society of New Jersey, organized in 1766, seventeen eventually became members of Congress or the state legislature. Four medical practitioners—Benjamin Rush, Josiah Bartlett, Lyman Hall, and Matthew Thornton—signed the Declaration of Independence; twenty-six other doctors were members of the Continental Congress. Historically, the number of Congressmen trained as physicians was actually highest in the earliest years of the Republic. Between 1800 and the Civil War, at least seven and usually twelve to eighteen physicians served in Congress. In the early decades of the twentieth century, the number ranged between six and ten. In recent decades, there have been at most four or five, in spite of the singularly high income and status of the medical profession in our day. The explanation for this decline seems relatively clear. In the earlier years, professional roles were much less specialized, and professional training was not as long and arduous as it is now. It was common for professional men, whether in law, medicine or divinity, to take on many roles. The educated were few and physicians a relatively high proportion of them. Since medicine was much less remunerative, the incentive to become politically engaged was relatively greater. Today, the demands of professional careers no longer permit the same easy interchange of roles that characterized a less industrialized and less differentiated society. The educated are more numerous and more specialized. The status of physicians has risen, but their prominence has diminished. They are less evident in politics and public affairs, which cannot easily offer them the economic rewards and security of medical practice.

The social and political fortunes of the professional elite should, in any event, not be confused with the situation of the larger body of medical practitioners. The prominence of a few notables says no more about a profession than the wealth and prestige of a handful of celebrated painters and musicians says about the general condition of artists in a society. Yet the distance between the middle and the top of a profession is itself a fact of interest, and among nineteenth-century physicians that
distance was so great that doctors cannot be said to have belonged to a single social class.

Medicine then rarely offered a path to wealth. Physicians who were rich typically had inherited fortunes or made money from commercial enterprises. Even at the close of a successful career, noted a writer in 1831, professional fees "hardly compare with the profits of one fortunate voyage, or the successful operations of a single day on the exchange." 9 J. Marion Sims, even after some years as a doctor, was ready to abandon the field should a good opportunity open up "because I knew that I could never make a fortune out of the practice of medicine." 10 Data from Rochester, New York, suggest the financial position of physicians in that community was actually declining in the mid-nineteenth century. In 1838, when two thirds of Rochester practitioners were property owners, their property was worth an average of $1,400, while the average value of all property per voter was $3,400. But in 1866 the proportion of property-owning physicians fell to one third, and their property averaged out at $1,500, the same as for all voters. Among 435 Rochester men who reported income of more than $1,000 in 1865, there were only eleven physicians and, among these, only four regular practitioners.11

Estimates of physicians' incomes, while scattered and fragmentary, present a relatively consistent picture. Few physicians who counted their incomes in the thousands were clearly mythical. In 1850, in a much noted report on public health, Larned Shattuck wrote that the average Massachusetts practitioner had billings of about $800 and earned about $800 in income.12 By way of comparison, the budget for a working family of five, printed in the New York Daily Tribune in 1851, gave its annual expenditures at $578.44.13 This level of expenditure, however, was probably within the reach only of skilled workers, the average annual earnings of nonfarm employees for 1850 were an estimated $363.14 One economist suggests that incomes in the working class around 1860 ranged from $200 to $500, in the middle class from $500 to $800, and among the rich between $3,000 and $10,000.15 This would put most doctors at the lower end of the middle class. In 1866 the city physician of Chicago, then a city of 254,000, was paid an annual salary of $100.16 In 1871, a Detroit Journal estimated that the average doctor earned $1,000 a year.17 (Prices that year, however were 40 percent above 1860 levels, still showing the residual effects of Civil War inflation.) In 1888 a doctor ruefully observed, "Even with continued health and strength, a physician in this country can never possibly acquire by his toil the incomes readily made in other occupations now recognized as professions." 18 In 1901 a financial handbook for doctors put the earning of an average city physician at $730 and those of a country doctor at $6,100.19 Another
guide, in editions from 1890 to 1905, estimated the average physician's income at between $1,000 and $1,500, and noted that every older physician knew it was impossible to get rich by practicing medicine, except in a money-making specialty. In 1904 the *Journal of the American Medical Association* observed that an average income for a doctor was about $750, though this may have been a self-serving underestimate. That same year, average earnings in all occupations, excluding farm labor, were $540; federal employees averaged just over $1,000; ministers, $759. A magazine article in 1903 commented that doctors often earned less than an "ordinary mechanic." This no doubt understated their average income, but it reflected a widespread perception that doctors were not particularly well off. It seems unlikely they earned more than other professionals.

**Status**

Whatever a physician earned, even in the 1800s he was still a professional man and this lent him a higher status than manual workers. Two dimensions of social ranking need to be kept separate: differences in wealth and income (objective access to scarce resources) and differences in honor, deference, and prestige (favorable or unfavorable social evaluations). The former corresponds roughly to the concept of class; the latter to that of status. Property and income should not necessarily be taken as accurate indicators of honor and prestige. The status of the medical profession, though insecure, was probably higher than its objective economic situation might suggest. This incongruity created a distinctive strain. On the one hand, physicians felt a need to maintain an image of a cultivated, respectable, learned profession; on the other, the reality was that many doctors had little education and often, when starting out in practice, could barely support themselves. In the face of financial pressures, the American physician was obliged to take on various kinds of work, like pharmacy and midwifery, that many of his European counterparts would have regarded as beneath their dignity. The village doctor was not above looking after his farmer's livestock as well as his family. He pulled teeth, sat up all night with patients, and embalmed the dead—functions later spun off to dentists, nurses, and undertakers.

Like many people whose position in society is somewhat precarious, physicians were much concerned to maintain a front of propriety and respectability. There is perhaps no more acute testimony to the status anxieties of late nineteenth-century doctors than the popular manual for medical practice by D. W. Cathell, *The Physician Himself*, which
ran through numerous editions beginning in 1881. Cathell gave elabo-
rate attention to the establishing of a proper distance between doctors
and their clients. Physicians could not allow people to get overly famili-
ar with them. Conviviality, he warned, "has a levelling effect, and di-
verts the physician of his proper prestige." Appearing in public in shirt-
sleeves, unwashed and unkempt, was unwise because it would "show
weakness, diminish your prestige, detract from your dignity, and lessen
you in public esteem, by forcing on everybody the conclusion that you
are, after all, but an ordinary person."35

Manuals of personal advice generally come in two varieties: vague,
uplifting, moralistic treatises filled with tedious pieties; and no-
nonsense, amoral guidebooks to getting on in the world. Cathell's man-
ual fell into the second category, and consisted fundamentally of rules
for what Irving Coffman has called "impression management." In the
interests of presenting an idealized image of the physician, it attached
paramount importance to his manner and appearance. "If one is espe-
cially polished in manner and moderately well versed in medicines," 

wrote Cathell, "his politeness will do him a great deal more good with
the public than special acquaintance with histology, embryology, and
other ultra-scientific acquirements."36

Here as elsewhere, Cathell's standard for judging the value of any
aspect of a physician's behavior or personality was the effect it would
have on public opinion. This concern reflected the situation of the aver-
age doctor, who depended for his livelihood on public favor, rather than
the judgment of his professional brethren or bureaucratic superiors. Be-
cause most physicians were independent general practitioners, doing
basically the same kind of work, they acquired business through a lay
referral network, rather than from colleagues, as do specialists, or from
organizational affiliations, as do physicians employed by institutions. Ca-
thell's physician was basically on his own, at the mercy of lay judgment
and anxious to curry good will.

The result was a preoccupation with the image that physicians pro-
jected to clients rather than to colleagues. This frame of reference af-
fected the psychology of medical work. All people, as Coffman says, are
obliged not only to carry out their tasks and routines, but also to express
their competence in doing so. Only in some cases, however, does the
expression become more important than the activity itself. Some stu-
dents so concentrate on appearing attentive, with their eyes open and
pens poised, that they miss everything being said.37 This is one of the
more familiar pathologies of everyday life, and it appears abundantly
in Cathell's manual. Cathell advises the physician to concern himself
first with expressing his competence and only secondarily with actually

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being competent. "Errors of diagnosis and prognosis," he writes in an altogether typical passage, "are ordinarily far more damaging to the physician than errors of treatment. Very few people can discover whether or not your diagnosis and treatment are correct... but if you say a patient will recover and he dies, or that he will die and he gets well... everybody will see that you are wrong... and they will naturally seek out some one with more experience or deeper thought."27

For the same reason, a doctor had to be bold and prompt. Simulated spontaneity helps to dramatize social performance. "The public," Cathell wrote, "love to see a physician appear to understand his business fully and to know things intuitively; therefore you must study and practice to be quick in diagnosis and ever ready in the treatment of the ordinary diseases and emergencies that will constitute nine-tenths of your practice."28 This premium on quick and bold response suggests why doctors were drawn to active and "heroic" intervention, especially when medical knowledge was uncertain.

Cathell's guide portrays physicians as facing a hostile, skeptical, and treacherous world. They had to take precautions against colleagues who might steal their patients and be on guard against "jealous midwives, ignorant doctor-women and busy neighbors," who spread malicious rumors about physicians.29 Even patients were a threat as potential competitors. At one point, Cathell suggests various ways for physicians to conceal the contents of their prescriptions. "By employing the terms ac. phenicum for carbolic acid, secale cornutum for ergot, kalium for potassium, natrum for sodium, chinin for quinia, etc., you will debar the average patient from reading your prescriptions... You can also farther eclipse his wisdom by transposing the terms...." There is some revealing advice about what to do with people who thought they could treat themselves:

Especially avoid giving self-sufficient people therapeutic points that they can thereafter resort to... It is not your duty to cheat either yourself or other physicians out of legitimate practice by supplying this person and that one with a word-of-mouth pharmacopoeia for general use. If compelled to give a person remedies under a simple form, study to do so in such a way as not to increase his self-conceit and make him feel that he knows enough to practice self-medication and dispense with your services; use whatever strategy is necessary to prevent such persons from taking unfair advantage of your prescriptions.

The physician ought to do tests at his office, not at patients' homes, lest they "begin to do tests for themselves—think they know more than they really do, and give you trouble."30

Deliberate artifice is the weapon, not of a powerful profession, but
of a weak one, which has no confidence in its own authority. Cathell’s guide reflects the exceptional insecurity of nineteenth-century doctors, their complete dependence on their clients, and their vulnerability to competition from laymen as well as colleagues. Uncertain of their authority, they were inclined to dissemble and cojole. “The American physician of those days,” Gerster recalled of the 1870s, “wielded less authority over his patients than did his European colleagues; he had to endure too much quibbling, and had to waste time in arguing patients into acquiescence.” In 1888 one physician, writing in a medical journal about the depressed state of the profession, recounted a futile attempt to explain the importance of color-blindness to the board of directors of a railroad:

They could not or would not understand or admit it. One otherwise pleasant old gentleman sunk back in his arm-chair, and with almost a snarl of doubt and derision exclaimed, “Why Dr. Jeffries, I have been railroaded more than forty years, never if any such thing as color-blindness existed, I must know all about it.”

The inability to command deference was the root of the profession’s trouble. Cathell noted that physicians would very likely meet up with “many a presumptuous patient or his keen friend” who would question prescriptions and argue about treatment. “You will be often harrassed and cross-examined by such self-constituted Solomons, and compelled to resort to various expedients to satisfy or foil them, and avoid collisions with their whims, insanations and prejudices. In fact, from this cause, the good effects of mystery, hope, expectation and will-power are of late almost entirely lost to regular physicians; all special confidence is sapped. . . .” And here Cathell may have had a point. Diminished authority may have cost doctors their therapeutic effectiveness as well as social status.

Powerlessness

The stresses and insecurities of nineteenth-century medicine were particularly acute for young physicians. Consider the contrast between a professional career in medicine today and in the 1800s. Now a medical career follows a virtually fixed course. In America, becoming a doctor means four years of liberal arts education, followed by four years of medical school, and an average of four years of supervised hospital training. Standardized national tests must be taken first to get into medical school, then to get through it, and finally to qualify as a certified specialist. The entire process, aptly called “contest mobility,” empha-
sizes academic competition and meritocratic achievement. It has a strong semblance of legitimacy. The students who fail generally believe it is their fault; those who do well interpret their success as the result of ability and hard work. The prolonged training imparts a strong sense of common identity as well as technical skills. The training is difficult, but the social and economic rewards are fairly certain.

The nineteenth century could hardly offer a more vivid contrast. A professional career had no fixed pattern. Whether or not a physician went to medical school and if he did, for how long and with what general education, were all variable. Apprenticeships had no standard content. A medical education was neither as long nor as peer oriented; organized professional socialization was minimal. Few training positions were available in hospitals, and those were not awarded competitively; social connections weighed heavily in selecting candidates. Most young physicians had to strike out on their own, gradually building up a practice. At that early point in a professional career when doctors now spend sleepless nights as overworked interns and residents, their counterparts in the nineteenth century were waiting for their first patients to show up. Often a first location might not work out because of an unfavorable reception or a surplus of local practitioners. Everything depended on the successful courting of patients. The process was difficult, and the social and economic rewards were uncertain.

For the ambitious, status competition in medicine revolved around two major contingencies: the acquisition of socially prominent patients and appointments to medical colleges, hospitals, and dispensaries. Often the two were related, as the socially prominent held positions as trustees of medical institutions and could open the necessary channels of influence. The elite of the profession, even in a fair-sized city, was ordinarily small enough so that its members knew each other. Admission to the group was not easy; the wrong ethnic background was often a categorical disqualification. Family ties could be crucial. The same surnames tend to appear in succeeding generations as the leading doctors of a city: Bigelows, Warrens, Minots, and Jacksons in Boston; or Peppers, Chapmans, and McClellans in Philadelphia.

The professional elite did not necessarily identify its interests with those of ordinary practitioners. On the contrary, they were often scornful of their abilities and character, and anxious to dissociate themselves from their less favored colleagues. The profession in New York City in the years after the Civil War was organized in a series of concentric circles. At the center was the small Medical and Surgical Society, whose thirty-four members held about half the consulting and attending positions at city hospitals and dispensaries. They were known, appropriately
enough, as the "hospital men." Next in exclusiveness was the New York Academy of Medicine, with 873 members; last, the county medical society, open to all regular practitioners, of whom there were about eight hundred. The elite played a role in the academy but none in the county society."

Neither the top ranks of physicians nor the bottom had a strong interest in effective medical licensing. The less educated practitioners, who had never been to medical school or had never graduated or held degrees of doubtful quality, feared the laws would be used to exclude them. The elite, on the other hand, stood to gain very little from their enactment. "These physicians," John Shaw Billings pointed out, "whose positions are fairly assured, and who, as a rule, have all the practice they desire, are not usually active leaders in movements to secure medical legislation, although they passively assent to such efforts, or at least do not oppose them; and their names may sometimes be found appended to memorials urging such legislation. They are clear-headed, shrewd, 'practical' men, who know that their business interests are not specifically injured by quacks.""8

In England, according to W. J. Reader, the impulse for protection in the professions came, not from the highest ranks, but rather from the practitioners just beneath them. The elite was quite content with its gentlemanly, informal way of co-opting members to the royal colleges. It was the men at the edges of the elite who most wanted formal examinations and formal standards. This may also have been the case in America. Billings suggested that the competition of irregular and untrained practitioners was felt most strongly among "young men who have not yet acquired local fame," who accordingly had the "more decided views about the importance of diplomas."88 When, in 1846, after several false starts, a convention met in New York to plan a national medical association for the United States, it was composed, as its chief organizer, then only twenty-nine, later recalled, "of the younger, more active, and, perhaps, more ambitious members of the profession." This initial session of what would become the leading organization of the profession—the American Medical Association—failed to attract many of the men who customarily took leading roles in professional affairs.89

If the AMA owed its impetus to the discontent felt by younger, less established doctors, it nonetheless had a very traditional program. It aimed primarily to raise and standardize the requirements for medical degrees. It also enacted a code of ethics that denied fraternal courtesy to "irregular" practitioners. Several immediate considerations prompted the founding of the association. The call for a convention emerged from discussions of educational reform in the New York State
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Medical Society, which concluded that local efforts would inevitably be frustrated. If the schools in New York raised their requirements, students would simply move elsewhere, and only the schools and their professors would suffer. Consequently, a national approach was necessary. Second, because of the repeal of licensing statutes, which had come in New York in 1844, only two years earlier, the orthodox profession could no longer look to the state for protection against what it viewed as the degradation of its standards. Instead, regular physicians would have to turn inward and rely on their own system of regulation. This was the impetus for the AMA's adoption of a code of professional ethics, with its concern for excluding sectarian and untrained practitioners. Denied the state's authority, the orthodox doctors were obliged to rely on their own.

Whatever the objectives of the AMA, it turned out to have little impact during its first half century. The "irregular" physicians accused it of attempting to monopolize medical practice and drive them from the field, and the AMA did have some success in keeping them out of the few medical positions in the federal government. But while monopoly was doubtless the intent of the AMA's program, it was not the consequence. The "irregulars" thrived. The efforts of the AMA at voluntary reform of medical education failed miserably, as the schools would not comply. The AMA had scant resources at its disposition. Its membership was small, it had no permanent organization, its treasury was bare. Its authority was questioned even within the profession. The association met once a year, and then for all practical purposes disappeared. It had an amorphous system of representation, at first drawing delegates from hospitals and medical schools as well as medical societies; once elected, delegates became permanent members, so long as they paid the dues. "A purely voluntary organization," one prominent doctor called it, "without any chartered privileges and with no authority to enforce its own edicts." The association became so embroiled in political squabbles that the more scientifically minded members split off to form a separate learned society. "We want," said Francis Delselfield, the first president of the Association of American Physicians, at its first meeting in 1886, "an association in which there will be no medical politics and no medical ethics; an association in which no one will care who are the officers, and who are not... We want an association composed of members, each one of whom is able to contribute something real to the common stock of knowledge and where he who reads such a contribution feels sure of a discriminating audience." There was no mistaking which group Delselfield intended to criticize.

self ousted in the equivalent of a palace revolt. One of the more colorful imbroglos occurred in 1856 at the Eclectic Medical Institute of Cincinnati, where the professors and their allies among the students split into two factions over the financial management of the school and the introduction of new "concentrated" medications. One party seized control of the school building and locked out its opponents, who then massed outside the doors. "This was the declaration of war," writes the school's
The failure of physicians to generate strong collective organization reflected a deeper structural weakness in the profession. It is all too easy to assume, as some analysts do, that because doctors, or any other group, share some imputed common interest, say, in obtaining a monopoly, they will act coherently to support and defend that interest. Yet any number of factors—competing loyalties; internal conflicts; the inability of the members of a group or class to communicate with one another; the active hostility of the state, church, or other powerful institutions—can prevent the effective articulation of common interests. At a minimum, collective action requires some mechanism for inducing individuals to lay their private affairs aside and devote effort, time, and resources to the group. Paradoxically, the collective ends pursued by organizations usually are not sufficient inducement. Interest-group organizations tend to produce generalized benefits, like favorable public opinion or friendly legislation, that members of a group can enjoy regardless of whether they personally contribute to the organization’s activities. Such collective goods encourage individuals to take a “free ride” on others’ efforts. To counteract this tendency, organizations have to be able to provide some benefit or penalty, apart from the collective good, that will induce participation. Mancur Olson has called these sanctions “selective incentives.”

Selective incentives for participation in professional organization were precisely what nineteenth-century medical societies were missing. Had licensing been placed in their hands, and had a license been essential to practice, they would have had a very powerful inducement. In depriving the medical societies of licensing powers, the states had deprived them of the power to organize and discipline their natural constituency. To be a member of a medical society helped certify the practitioner’s social status, but a diploma from a medical college could do the same. Professional organizations languished because they had no leverage over individual doctors.

The medical practitioners of the nineteenth century could get by pretty much on their own. They did not need access to hospital facilities, since very little medical care took place there. The natural inclination of physicians then was to solve their problems individually. They advertised themselves, either by their manner or in the press, or through what economists call “product differentiation” (that is, by offering a distinctive brand of medicine). The orientation of the profession, in short, was competitive rather than corporate. The forces pulling its members apart prevailed over the common interests that might have held them together.

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MEDICINE’S CIVIL WAR AND RECONSTRUCTION

The Origins of Medical Sectarianism

Nothing weakened the medical profession more than the bitter feuds and divisions that plagued doctors through the late nineteenth century. Partly, the hatreds were sectarian; partly, they were personal. They were open and acrimonious, and as common in the high tiers of the profession as in the low. Philadelphia, the center of early American medicine, was a maelstrom of professional ill will. The animosity between John Morgan and William Shippen, Jr., the first two medical professors in the city, was especially notorious. It divided the country’s first medical school and then split the medical department of the Continental Army during the Revolutionary War, as the two physicians competed against each other for control. During the yellow fever epidemic in Philadelphia in 1793, Benjamin Rush and his rivals took to the press to denounce each other’s treatment. “A Mahometan and a Jew,” Rush wrote, “might as well attempt to worship the Supreme Being in the same temple, and through the medium of the same ceremonies, as two physicians of opposite principles and practice, attempt to confer about the life of the same patient.”

Medical colleges were a particularly rich source of fraternal hatred. Since an appointment had great value in increasing the size of a physician’s practice, there was inevitably resentment among those excluded. Often the faculty at one school could not abide the faculty of another. Even within the same school professors sometimes refused, as one noted, “to hold any communication with each other except such as their official position as teachers peremptorily demanded, in faculty meeting.” The history of medical schools in the nineteenth century is a tale of schisms, conspiracies, and coups, often destroying the institutions in the process. Daniel Drake, who wrote an essay on professional quarrels listing ten different causes, founded a medical college in Ohio, then helped remove some of his colleagues on the faculty, only to find himself ousted in the equivalent of a palace revolt. One of the more colorful imbroglos occurred in 1856 at the Eclectic Medical Institute of Cincinnati, where the professors and their allies among the students split into two factions over the financial management of the school and the introduction of new “concentrated” medications. One party seized control of the school building and locked out its opponents, who then massed outside the doors. “This was the declaration of war,” writes the school’s
historian. "Knives, pistols, chisels, bludgeons, blunderbusses, etc. were freely displayed." The battle was finally settled when one side brought in a six-pound cannon.

Physicians were not exactly supposed to behave this way. Professional tradition insisted that doctors present a unified front to the public, no matter how divided they were in private. The AMA's code of ethics, like others before it, prescribed a "peculiar reserve" toward the public in all professional disputes. The code enjoined consulting physicians to discuss cases entirely in secret and to present patients with a single opinion. If two practitioners disagreed, they were supposed either to let the decision rest with the regular attending doctor or to call in a third physician, so patients would never know there had ever been a difference of opinion in their case. Only in hopeless deadlocks were physicians to let patients make a choice. The etiquette of consultations called for the regular attendant to precede the consultant in entering the sick room and to follow him in leaving it, thereby allowing the outsider no time to impugn the regular doctor's ability. Especially during a first consultation, the consultant was supposed to suggest as few changes in treatment as possible to avoid embarrassment. He was to say nothing that might jeopardize the impression of competence the regular doctor was trying to project.

A concern for fostering professional solidarity guided the formulation of professional ethics. Under the code, physicians were to avoid any behavior that might smack of patient stealing, even in their daily activities. So, for example, they were supposed to avoid visiting any sick friends who were under the care of another doctor since that might arouse suspicions; and if they did make such a visit, they were to skirt any discussion of the treatment. Doctors were to give free care to one another and fill in for sick or traveling colleagues. When taking over a case, they were to justify, as far as honesty would permit, the previous doctor's conduct of the case. A wealthy doctor, according to the code, was never to give free advice to the affluent, for this was to deplete the "common funds" available for support of the profession.

These rules had only mixed success. Bedside controversies among consulting physicians were apparently not unusual. It was a standing joke that no two doctors could ever agree. And the ethical code itself exacerbated divisions because it excluded sectarian physicians from professional courtesy and association.

Of all the divisions that rent the profession, sectarianism was the most virulent. According to the usual explanation, medical sects grew in the mid-nineteenth century because of the inadequacy of contemporary medicine, particularly the disastrous errors of "heroic therapy," which
emphasized bleeding, heavy doses of mercury, and other modes of treatment now believed to range from the ineffective to the lethal. No doubt the inadequacy of therapeutics was one reason why physicians disagreed. It fails to explain, however, why disagreements led to sectarian organization. The shortcomings of medical treatment in earlier epochs were grievous but they did not always produce antagonistic sects. Practitioners who severely disagree do not necessarily read each other out of a profession. Every field of thought or work is subject to great differences of opinion, sometimes violent ones, but only under certain circumstances do those differences generate organized factions.

Sectarianism also has a rather special meaning. A sect, religious or professional, is a dissident group that sets itself apart from an established institution—a church or a profession; its members often see themselves as neglected and scorned apathies of truth. As Troeltsh and Weber point out in distinguishing a sect from a church, sects typically originate in charismatic leadership and have a fundamentally voluntary character. One joins a sect, but one may be born into a church (or graduated into a profession). Medical and religious sects resemble each other in their stipulation of certain definite ideas as requirements for membership, while churches and professions often accept members without closely inquiring into their beliefs. Religious sects, however, typically offer their members a complete way of life, while medical sects are more circumscribed in their concerns.

More than a qualified analogy links religious and medical sects; they often overlap. The Mormons favored Thomsonian medicine and the Millerites hydrotherapy. The Swedenborgians were inclined toward homoeopathic medicine. And the Christian Scientists originated in concerns that were medical as well as religious. In America various religious sects still make active efforts to cure the sick, while the dominant churches are more or less reconciled to the claims of the medical profession and have abandoned healing as part of pastoral care. For both medicine and religion, the nineteenth century in America was a period of growing sectarianism. The society was not just pluralist, as many have described it, but "pluralizing." It created new divisions as well as incorporating traditional ones. To attribute this tendency to the sheer tolerance and diversity of American life would be ingenious. Religious denominations multiplied, especially among the less privileged, along the lines of class, sectional, and ethnic antagonisms, as well as differences of theology. Sectarianism intensified not only because American society was open, but also because it was closed. This was probably as true in medicine as in religion. The cliquishness of medical politics encouraged excluded practitioners to generate countermove-
ments to improve their position. A sect, as one analyst points out, serves as a competing "reference-group" for its members, allowing them to seek status and prestige on more favorable terms than are available in the wider society. For the less educated medical practitioner, or for educated immigrant physicians denied access to hospital and medical school appointments, sectarian organization provided an avenue for asserting their claims against the dominant profession. Moreover, because of the competitive conditions of medical practice, doctors had every incentive to differentiate themselves, to make their services distinctive, and to appeal to changing currents of public sentiment.

In the second half of the nineteenth century, after the decline of Thomsonianism, the principal medical sects in America were the Eclectics and homeopaths. The Eclectics, who had absorbed most of the Thomsonian movement, were botanic doctors, though they professed, as their name suggests, to take the best from various schools. They were followers of a New Yorker named Wooster Beach, who like Samuel Thomson had mixed radical politics with herbal medicine (a combination not unknown today). Unlike the Thomsonians, the Eclectics neither denied the importance of scientific training nor hesitated to create their own schools, although they also did not hesitate to destroy them by fighting with one another. The Eclectics accepted and taught most conventional medical science, except that in the area of therapeutics they carried on a vigorous campaign against the excessive drugging and bleeding of the regular profession. All but one Eclectic college accepted women. In number, the Eclectics were the third largest group of practitioners, following the regulars and homeopaths; they probably also stood third in the social status of their adherents. The Eclectics were distinguished mainly by their adversarial stance against the regular profession, their claim to be reformers, their empiricism, and their indigenous American roots.

The homeopaths were an entirely different breed. They had a highly elaborated, abstruse philosophical doctrine, drew many of their number from German immigrant physicians, and had much of their appeal among the urban upper classes. The founder of homeopathy was Samuel Hahnemann (1755-1843), a German physician. Hahnemann and his followers saw disease fundamentally as a matter of spirit; what occurred inside the body did not follow physical laws. The homeopaths had three central doctrines. They maintained first that diseases could be cured by drugs which produced the same symptoms when given to a healthy person. This was the homeopathic "law of similars"—like cures like. Second, the effects of drugs could be heightened by administering them in minute doses. The more diluted the dose, the greater the "dynamic"
effect. And third, nearly all diseases were the result of a suppressed itch, or "pass." The rationale for homeopathic treatment was that a patient's natural disease was somehow displaced after taking a homeopathic medicine by a weaker, but similar, artificial disease that the body could more easily overcome. The first homeopathic practitioner in America was a Dutch immigrant who settled in New York in 1826. Before 1850 homeopathy had only a few proponents in a few states, but it became better known in the next decade, and in 1850 a homeopathic college was founded in Cleveland. Before 1860 the majority of homeopathic practitioners had been recruited from the orthodox profession and still considered themselves regular physicians. Converts to homeopathy seem to have prospered; for many practitioners, it may have served as a route to public favor.

Part of the appeal of homeopathy apparently lay in the kind of relationship it encouraged between doctor and patient. Homeopathic doctrine insisted that symptoms were the only perceptible aspect of disease and that they had to be learned from the uninterrupted report of the patient. Consequently, homeopathy stressed the need for sympathetic attention by the physician and individualized diagnosis and treatment of patients. (The parallel with certain schools of modern psychiatry will be obvious.) Moreover, because homeopathy called for reduced dosages, it provided an alternative to the pharmacological excesses of orthodox physicians. Homeopathic treatment was probably more pleasant than were the ministrations of the conventional doctor of the epoch. Additionally, Hahnemann's notion that diseases could be cured by drugs producing similar symptoms led him and his followers to take an interest in experimental tests, or "provings," of drugs on healthy subjects. Because homeopathy was simultaneously philosophical and experimental, it seemed to many people to be more rather than less scientific than orthodox medicine.

The significance of this appeal should not be missed. No longer were the main challengers to medical orthodoxy claiming that all useful medical knowledge was simple. They, too, now accepted that medicine was legitimately complex. The two leading dissenting sects both believed in scientific training; most of their curriculum was indistinguishable from that of orthodox schools. The three groups shared a wide common ground, even though they disagreed about therapeutics. Much of the public, in fact, may have been unaware of the doctrinal differences that divided them.

As homeopathy won increasing numbers of adherents in the 1850s, a countermovement against it took shape among regular physicians.
The orthodox insisted that homeopaths had to be expelled from the profession not because their doctrines were wrong, but because they violated professional ethics in heaping abuse on their colleagues, basing their practice on an "exclusive" dogma, and actively proselytizing among both physicians and the lay public. A report to the Connecticut Medical Society in 1852 accused homeopathy of waging "a war of radicalism against the profession" and observed, "Very different would have been the profession's attitude toward homeopathy if it had aimed, like other doctrines advanced by physicians, to gain a foothold among medical men alone or chiefly, instead of making its appeal to the popular favor and against the profession." Whatever the justice of these and other charges, the homeopaths were forced to leave the company of the orthodox. They did not secede; the regulars threw them out. Although the AMA had not been formed primarily with homeopathy in mind, it quickly turned to the challenge. In 1855 the organization insisted that state and local societies desiring representation accept its code of ethics, including the bar from membership of doctors subscribing to an exclusive dogma, of which homeopathy was a chief example. A showdown came in the early 1870s. A committee of the AMA recommended that the Massachusetts Medical Society, which continued to harbor homeopaths among its members, lose representation until it purged itself of heretics. The Massachusetts society at first demurred, then faced a court battle over its legal right to expel dissenters, but finally removed them, to great public consternation. While the AMA did not cripple the advance of homeopathy, it did prevent regular physicians who adopted homeopathy from remaining in orthodox societies. Between 1850 and 1880, the battle raged between the two camps, as the regulars sought to deny the homeopaths all official positions as well as all association with the profession. The avoidance of contact with homeopaths took on all the gravity of a pollution taboo. In 1878 a physician in Norwalk, Connecticut, Dr. Moses Pardee, was expelled from his local medical society under suspicion of having consulted with a homeopath—his wife, Dr. Emily Pardee. (The state society later annulled the decision for want of evidence.) A New York doctor was expelled for buying milk sugar at a homeopathic pharmacy. The Surgeon General of the United States was denounced for having taken part in the treatment of Secretary of State William Seward, the night he was stabbed and President Lincoln was shot, because Seward's personal physician was a homeopath. (Seward survived, and the AMA graciously held back from censoring the Surgeon General for having helped save the life of the Secretary of State.) The orthodox doctors righteously refused to serve with homeopaths on hospital staffs and for thirty years were able
to exclude them from municipal institutions in major cities like New York and Chicago. During the Civil War, the regulars dominated the military medical boards, and the homeopaths, in spite of congressional support, were unable to gain approval for military service.58

Despite these attacks, homeopathy enjoyed wide popularity in the two decades after the Civil War. It was especially strong in cities like Boston and New York and had the support of many prominent social figures. In 1870 Congress approved a charter for a homeopathic medical society in Washington, D.C., which, unlike the regular society, was willing to admit blacks. When Boston University formed a medical school in 1872, it asked homeopaths to form the faculty. Homeopathy fought itself to a position almost of parity with the regular profession in legal entitlements and public respectability, though not in numbers of practitioners.

While unorthodox practitioners multiplied, they were still greatly outnumbered by members of the regular profession. Between 1835 and 1860, according to Kett, sectarians represented roughly 10 percent of the total number of physicians. By 1871 they represented 13 percent (nearly 6,000 sectarians compared to 39,000 regulars) according to statistics gathered by J. M. Toner and published by the AMA. Toner, however, was unable to classify 4,800 doctors and seems to have undercounted the total size of the profession by ten to fourteen thousand. As of 1870, the sectarians operated fifteen out of seventy-five medical schools, and during the next few decades their share of the market seems to have stabilized at around one fifth. In 1880 the regulars conducted seventy-six medical schools, the homeopaths fourteen, the Eclectics eight. Ten years later, the respective totals were 106, 16, and 9. (During both decades, two schools belonged to a fourth group, the "physiomedicals," direct descendants of the Thomsonians.) These figures suggest a fairly stable distribution of strength among the rival groups, with the irregulars at roughly 20 percent, or slightly lower.59

Conflict and Convergence

The sectarian challenge had an effect on the profession that cannot be measured in numbers. The mere existence of competing parties in medicine was a standing rebuke to the claims of orthodoxy to represent a science. As long as physicians were divided, any move by the regulars to bring back licensing or reform medical education seemed like a narrow maneuver on their part aimed at winning advantage over the dissenters. "[T]o-day our profession is regarded by the State," one orthodox practitioner pointed out, "as only a numerically strong medical
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sect. "This judgment was not wholly undeserved. The sectarians, following Hahnemann, had dubbed the regular doctors "allopaths," insisting that they, too, had an exclusive dogma, cure by opposites, the reverse of homeopathy. While leaders of the profession had insisted the designation was inaccurate, many regular practitioners apparently accepted it and believed it to be correct, thereby reducing themselves to nothing more than an orthodox sectarianism."

For most of this period, the attitude of the press, the courts, and state legislatures was predominantly agnostic. They neither believed nor disbelieved in the claims of the competing groups and tried, when possible, to avoid becoming embroiled in their partisan disputes. When the regulars attacked the divergent practitioners, the press often took the side of the persecuted and called for tolerance. This was not so much an indication that they approved sectarian ideas; they wanted a generous pluralism to prevail. In the aftermath of the expulsion of the Massachusetts homeopaths, The New York Times commented that while the medical society "meant to disgrace the heretical physicians... we have little doubt that in the minds of all intelligent persons they have only succeeded in bringing disgrace upon themselves." Many saw diversity in medical practice as a counterpart to religious differences. When the orthodox sought control of medical practice, they bridled: One could no more have boards of orthodox doctors passing on homeopaths than Protestant boards ruling on the acceptability of Catholic priests.

Slowly, the regular profession faced up to the unhappy fact that it had been fought to a draw. Public resistance to orthodox claims eventually brought concessions. An early sign of compromise came in Michigan, where the state legislature required the incorporation of homeopathy into the University of Michigan Medical School. The regulars were aghast but finally yielded. Once the school added a homeopathic division in 1875, professors of the two camps taught there together. Homeopathic students took the same basic courses as their classmates, except for materia medica (pharmacology) and the practice of medicine, which were given separately. The arrangement put orthodox faculty members in the awkward position of teaching future homeopaths in basic science courses, but the AMA declined to expel them on that account. Acting through the state legislature, the public was forcing the regulars and homeopaths to come to terms with each other.

The movement toward convergence and compromise now came from both sides. By the late 1870s and early 1880s, there was growing restlessness among many regular physicians who wanted to work out some modus vivendi with the sectarians. It soon became apparent that wherever sectarians practiced, even in relatively small numbers, the
regular physicians were unable to obtain licensing legislation over their opposition. Moreover, specialists, especially in the larger cities, were increasingly unhappy with the professional restriction on consultations. Referrals from homeopathic and eclectic general practitioners represented a potentially significant source of income for them. At the same time, many homeopathic practitioners began moving toward an accommodation with orthodox medicine. While the purists among them held to Hahnemann’s faith in extreme dilutions of drugs and believed in treating symptoms individually, the moderates, who were the dominant group, accepted concentrated medicines and thought in terms of treating diseases, as did allopathic physicians. The moderates also rejected as unscientific Hahnemann’s belief in a “vital force.” In 1880, as the internal disputes among homeopaths intensified, their national organization, the American Institute of Homeopathy, split as the purists left to form their own International Hahnemannian Association.61

An analogous division then opened up in the regular profession between doctors who wanted an accommodation with the homeopaths and others who wanted to maintain the AMA’s hard line against them. Disenchantment with the AMA’s position first surfaced in New York, where the state medical society voted in 1882 to abolish the clause in the code of ethics that forbade consultations with sectarians. The leaders of the revolt were among the most eminent New York physicians; many of them were specialists with important hospital connections. They argued that the AMA’s strategy against the sectarians had failed. Rather than stigmatizing them, the denial of fraternal courtesies had only made the profession seem narrow-minded and monopolistic. In any event, the code was continually being violated: Consultations between regulars and homeopaths were increasingly common and the code was only selectively enforced. Doctrinal differences, furthermore, were diminishing as homeopaths abandoned Hahnemann’s more extreme ideas. “We all know that the majority of sectarian physicians of the present day have a regular medical education, and avail themselves ‘of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry,’” wrote one physician, referring to the language of the AMA code.62

This was by no means a majority viewpoint among orthodox doctors. The New York society was quickly expelled from the AMA, and a newly formed New York Medical Association replaced it as the state’s national representative. Even in New York most doctors seem to have opposed the state society’s decision to seek peace with homeopathy. In a survey taken at the time, support for the repeal of the code was greatest in
the largest cities. The majority of doctors in New York City, Brooklyn, Albany, and Rochester favored the change, while small-town doctors generally were opposed.63

But the minority of the 1880s represented a future majority. The profession would become more urbanized, more specialized, more like the physicians who opposed the hard line against sectarians in the 1880s. The growth of specialization increased interdependence in the professions. In particular, it made specialists dependent upon homeopathic and Eclectic general practitioners for referrals. Conversely, the growth of hospitals made the sectarian general practitioners dependent upon the "hospital men" for access to the increasingly important facilities that the specialists controlled. Only in some areas could the sectarians create their own institutions. In the eighties, homeopaths gained entry to the municipal hospitals in Boston and Chicago that previously had been closed to them. The incentive to differentiate oneself was now counterbalanced by an incentive to conform and accommodate. At the same time, the development of medical science provided an increasingly firm basis for convergence. The sectarians shared most of the fundamentals of medical science in common with the regular profession; as scientific knowledge advanced into the area of therapeutics, their differences tended to diminish. The growth of science thus reinforced the effect of new institutional relations, laying the ground for a new professional consensus.

**Licensing and Organization**

Probably the most important sign of convergence between the competing groups was their common support, beginning in the 1870s and 1880s, for the restoration of medical licensing. Recognizing their inability to secure legislation on their own, many educated regular physicians accepted collaboration with sectarians to win licensing laws that would protect all of them against competition from untrained practitioners. Once united behind these measures, doctors were able to win favorable action, though the initial statutes enacted at their behest set rather minimal licensing requirements, usually no more than a medical diploma. This was acceptable to homeopaths and Eclectics because they had medical colleges under their own control. Moreover, any doctor who had been in practice for a given number of years, regardless of education, was typically allowed to continue.

It would be a mistake to take these new licensing laws as evidence that physicians were now a powerful interest group. The licensing movement of the late nineteenth century was by no means restricted
to doctors or even to what are customarily regarded as professions. Plumbers, barbers, hucksters, pharmacists, embalmers, and sundry other groups sought and were granted licensing protection. Historically, as Lawrence Friedman has pointed out, there have been two kinds of occupational licensing. Some statutes, like those requiring licenses of peddlers, have been clearly hostile in intent. They have set high, if not prohibitive, licensing fees and have been administered by local government officials. In the case of peddlers, the principal aim has been to limit competition with local tradesmen. Other licensing laws, sought by members of the regulated occupations, have set moderate fees and placed enforcement in the hands of the practitioners themselves. While hostile licensing had been common in America as far back as colonial times, "friendly" licensing developed on a large scale only in the late nineteenth century.64

The origins of this new pattern lay in the changed circumstances of the society, which put occupational licensing in a substantially new light. Increasingly, large corporations dominated the economic landscape, dwarfing independent professionals and small businessmen. Struggling to hold their own, these groups struck back under the banners of various movements. Support for antitrust legislation was one expression of their effort to survive; trade and professional organizations were another. Licensing, rather than being identified with power and privilege, as it had been in the 1830s, became part of the resistance of a threatened petite bourgeoisie.

The occupations that pursued their interests through licensing were distinguished less by their political power than by their distinctive structural position within the economy. Predominantly self-employed, most of their members worked out of small shops requiring little capital to establish. Their trades and professions were easy to enter and consequently beset by competition. Where an occupation included some members who were employers and some who were employees, as was the case among barbers, the differences in status were slight, mobility was common, and conflict was rare. Most important, none of the occupations faced any organized buyers or employers who stood to lose by the monopoly that licensing would create. They generally sold their goods and services to individuals rather than corporations. These features helped minimize coherent political opposition to licensing bills. The people whose interests would most immediately be sacrificed by licensing were relatively unorganized and unskilled competitors. And by stipulating that anyone in business at the time be able to qualify under the statutes, the laws disarmed much of the potential opposition within the trade.65
The initial medical practice acts, which required only diplomas and made exceptions for long established practitioners, generally followed this pattern. Only gradually were the requirements stiffened and enforced. One major landmark was an 1877 law passed by Illinois, which empowered a state board of medical examiners to reject diplomas from disreputable schools. Under the law, all doctors had to register. Those with degrees from approved schools were licensed, while others had to be examined. Of 3,600 nongraduates practicing in Illinois in 1877, 1,400 were reported to have left the state within a year. Within a decade, three thousand practitioners were said to have been put out of business. In many states licensing developed incrementally. First, a minimal statute was enacted requiring only a diploma; then the principle was established that diplomas could be examined and candidates rejected if the school they had attended was judged inadequate; and finally, all candidates were required both to present an acceptable diploma and to pass an independent state examination. By 1901 twenty-five states and the District of Columbia were in this last category, while only two states were in the first. No jurisdiction was without a licensing statute of some sort.

Missouri exemplifies the gradual extension of licensing control. The state passed an initial law in 1874, but it required a doctor only to register a degree from a legally chartered medical school with a county clerk. The statute had little effect. Since lax incorporation laws permitted anyone to start a school merely by applying for a charter, Missouri soon had more medical colleges than anyone could keep track of. Many were simply diploma mills. The state’s doctors were too disorganized to do anything about the situation. According to a survey by the state medical society, nearly five thousand people practiced medicine in Missouri in 1882; only about half of them were graduates of “reputable” schools. At its highest point during the previous thirty years, the medical society had a membership of only 140; this gravely weakened its claim to speak for the profession. Its resources were meager. Between 1850 and 1900, its treasury never had more than $900 in it at any one time. Most physicians had no interest in regulation, and those who did were divided, since physicians who ran substandard schools had no interest in seeing licensing requirements stiffened. The lack of unity within the profession kept it almost powerless. Finally, in 1894, the state board of health, which was nominally in charge of licensing, tried to insist that medical schools set as a prerequisite for admission a college or high school degree, or an equivalent certificate. When the proprietary medical schools then began manufacturing certificates, the board announced that medical students would have to pass a state test to dem-
onstrate their preliminary education. But the medical schools sought judicial relief, and the Supreme Court of Missouri ruled that in raising premedical requirements, the board of health had exceeded its authority. Not until 1901 was a definitive medical practice act approved empowering the board of health to act as a board of medical examiners. By then, physicians had finally united behind effective legislation, and they had the support of the Presbyterian and Methodist churches, which were alarmed at the growing popularity of Christian Science and Weltmerism, a local mind-cure cult.68

Missouri was particularly slow to regulate medicine and long remained a festering sore to the AMA, but its history illustrates a common irony. Even after the co-optation of the sectarians, the main resistance to strong licensing laws originated within the profession. "Practically the only opposition to effective medical legislation in the country," remarked a vice president of the AMA in 1887, "comes from the profession itself," and he was referring specifically to the numerous, quick-degree proprietary colleges.69 The physicians who operated the schools had, in effect, acquired a strong interest in maintaining the profession's weakness: They profited from more medical graduates, while the profession was flooded. The first licensing acts had increased the demand for diplomas, even bogus ones, thereby promoting the commercial medical colleges and diploma mills rather than putting them out of business. But as the requirements were tightened, barring the graduates of the lesser schools from practice in an increasing number of states, those schools faced extinction. Their owners opposed stricter licensing in self-defense.

On more ideological grounds, some liberals and populists also opposed medical licensure. Social Darwinists, following the English social theorist Herbert Spencer, thought all such regulation unwise. "Very many of the poorer classes are injured by druggists' prescriptions and quack medicines," Spencer willingly conceded. But there was nothing wrong in that; it was the penalty nature attached to ignorance. If the poor died of their own foolishness, the species would improve. The physicians, Spencer and others warned, meant to set themselves up as a clergy. The opposition to licensing also found a voice in William James, who appeared before the Massachusetts legislature in 1888 to argue that licensing would interfere with freedom of research in medicine. James had personally tried an assortment of healers and was pursuing his own research into psychic cures. At a time when Christian Science was a great subject of controversy, he defended the right of "mind curers" to test out their new modes of therapy. "I well know," he wrote to a friend shortly thereafter, "how my colleagues at the Medical School .
. . . will view me and my efforts. But if Zola and Col. Picquart can face
the whole French army (in the Dreyfus case), can't I face their disap-
proval? Much more easily than that of my conscience!"

Such protests had little effect. The courts as well as the legislatures
had swung behind the medical profession. The crucial test of the legiti-
macy of medical licensing occurred in 1888, when the issue came before
the U.S. Supreme Court in the case of *Dent v. West Virginia*. Frank
Dent, an Eclectic physician in practice for six years, had been convicted
and fined under an 1883 West Virginia statute requiring a physician to
hold a degree from a reputable medical college, pass an examination,
or prove that he had been in practice in the state for the previous ten
years. The State Board of Health deemed unacceptable Dent's degree
from the American Medical Eclectic College of Cincinnati. Delivering
the Supreme Court's unanimous opinion upholding the law, Justice Ste-
phen Field noted that every citizen had the right to follow any lawful
calling, "subject only to such restrictions as are imposed upon all per-
sons of like age, sex and condition." But the state could protect society
by imposing conditions for the exercise of that right, as long as they
were imposed on everyone and were reasonably related to the occupa-
tion in question. "Few professions," he continued, "require more care-
ful preparation . . . than that of medicine." It had to deal with "all those
subtle and mysterious influences upon which health and life depend"
and required knowledge not only "of vegetable and mineral substances,
but of the human body in all its complicated parts, and their relation
to each other, as well as their influence upon the mind." Everyone
might have occasion to consult a doctor, but "comparatively few can
judge of the qualifications of learning and skill which he possesses." Re-
liance had to be placed on the assurance given by a license. Reasonable
considerations, therefore, might prompt a state to exclude people with-
out licenses from practicing medicine.11 In a later case, *Hawker v. New
York* (1898), the Court extended the grounds for denying a medical li-
cense, noting that in a doctor "character is as important a qualification
as knowledge."12 At the state level, courts also supported medical prac-
tice laws. After the Supreme Court decision, there never seems to have
been any serious question about the matter.

As boards of medical examiners were established, two patterns pre-
dominated. The less frequent was to set up separate boards for regular
physicians, homeopaths, and Eclectics, each having the right to license
physicians of its own persuasion. The more common pattern was to give
representation on the same board to sectarians as well as to regulars.
Sometimes statutes assigned to the various groups the right to fill a des-
ignated share of the seats though this amounted to giving private orga-
nizations control of agencies of the state, it was upheld by the courts. Despite their historic efforts to avoid contact with sectarians, the regular physicians now found that a single integrated board worked better than multiple separate boards in controlling entry into the profession. Accordingly, they set aside their scruples about consorting with heretics and made common cause with them.

This collaboration between regular physicians and sectarians clearly violated the AMA’s code of ethics, but none of the doctors who served on joint state licensing boards suffered excommunication. The code was simply ignored. By the turn of the century, prominent leaders in the AMA conceded the code was an anachronism and were anxious to put the issue of sectarianism behind them. So in 1903 the AMA adopted a revised code of ethics that said little about irregular practitioners. While noting that it was inconsistent with scientific principles for physicians to designate their practice as exclusive or sectarian, the new code elided any reference to the kind of medicine doctors actually practiced. Within a few years, orthodox societies were seeking out members among sectarian physicians. In New York State the two competing regular medical organizations reunited after having been at odds for two decades over their relationships with sectarians. Homeopaths and Eclectics were admitted to the merged organization. D. W. Cathell, who had been a fierce antagonist of the sectarians, wrote in a medical journal that the new code would “have a great and far-reaching effect on our material interests; it will everywhere promote and foster professional unity; and, far above all else, by putting an end to partisan agitations it will increase the good repute of every worthy medical man in America.”

The myth persists today that homeopaths and herbal doctors were suppressed by the dominant allopathic profession. Yet the sequence of events suggests otherwise. Both the homeopaths and Eclectics won a share in the legal privileges of the profession. Only afterward did they lose their popularity. When homeopathic and Eclectic doctors were shunned and denounced by the regular profession, they thrived. But the more they gained in access to the privileges of regular physicians, the more their numbers declined. The turn of the century was both the point of acceptance and the moment of incipient disintegration. Enroll-ment at Eclectic schools peaked at one thousand in 1904; by 1913 it was down to 256. In 1900 there were twenty-two homeopathic schools, but ten years later there were only twelve, fewer than in any year since 1880; by 1918 only six remained and these all ceased to be homeopathic institutions within the next several years. Homeopathy had one foot in modern science, the other in pre-scientific mysticism; this became
an increasingly untenable position. While regular medicine was producing important and demonstrable scientific advances, homeopathy generated no new discoveries. The contrast was not lost on many in the group. They edged further away from Hahnemann; the final dissolution came of itself. The Eclectics also succumbed to quiet co-operation; they were only too glad to be welcomed into the fold.

In part, the old sects gave way to new ones. The 1860s had seen the appearance of two new groups representing almost diametrically opposed positions. One was purely mechanicistic in conception; the other, purely spiritual. The first, osteopathy, was founded by a rural Missouri doctor, Andrew Still, who maintained that the human body, when sick, had to be repaired by placing its parts back in their proper relationship.

"Quit your pills and learn from Osteopathy the principle that governs you," Still declared. "Learn that you are a machine, your heart an engine, your lungs a fanning machine and a sieve, your brain with its two lobes an electric battery." In 1890 he began teaching his principles in the town of Kirksville in Missouri; the following year he obtained a state charter and created a school. Patients flocked there in hundreds, the school flourished, and in 1897 osteopathy won legal protection from the Missouri legislature.

Christian Science, the second of the new sects, was born in the East, near Boston, and like homeopathy picked up adherents in urban areas among the well-to-do classes. Mary Baker Eddy, an obscure New England mystagogue who founded the group, altogether denied the reality of matter and claimed that disease, like all else, was purely a function of mind and spirit. Christian Science was, in a sense, homeopathy taken to the final dilution, the point where the world dissolved into idea. But while Mrs. Eddy thought medicine and nourishment of no use ("We have no evidence of food sustaining life, except false evidence"), she did not, as her biographer Edward Dakin points out, deny the value of money. Like osteopathy, Christian Science was run in a very business-like fashion and earned its founder a substantial fortune.

The fate of these later sects turned out to be quite different from the earlier ones. While homeopathy and Eclecticism were assimilated into the medical profession, osteopathy and Christian Science remained independent and survived on their own. So, too, did chiropractic, which, like osteopathy, originated as a commercial enterprise in the Midwest in the 1890s, and was based on similarly mechanistic principles. Oddly enough, the homeopaths and Eclectics no longer exist as well organized groups because they were strong at a time when regular physicians needed their political support for licensing legislation. Their price for cooperation was acceptance into the profession. Osteopathy later also
became professionalized and sought integration into the medical profession. But lacking any point of leverage with physicians, it failed to gain entry.

The AMA's gesture of accommodation toward its old adversaries, the homeopaths and Eclectics, was part of a more general effort around the turn of the century to unify and strengthen the profession. As of 1900 the AMA had only eight thousand members. The total membership of all medical societies, local and state as well as national, was approximately 35,000; another 77,000 physicians belonged to no association whatsoever. As a writer who reported these figures wrote, the profession was in "wretched condition" as a political force. In 1901 the AMA revised its constitution, creating a new legislative body, the House of Delegates, with representatives drawn primarily from state medical societies in proportion to their membership. Previously, a hodgepodge of county and regional organizations, as well as state societies, had been entitled to send delegates to AMA conventions in the ratio of one representative for every ten members. Some local societies had more delegates than did their state associations. By the late 1890s, the number of delegates had become unmanageable; virtually anyone showing up at the AMA's annual meeting could take part in its business, as it was impossible to check credentials. Besides being unwieldy, this arrangement gave inordinate influence to physicians who happened to live near the site of an annual convention, and cost the association authority and continuity in its decision-making. Under the new constitution, the House of Delegates had a fixed membership of 150, to be periodically reapportioned as in the U.S. House of Representatives. The AMA would be a confederation of the state medical societies, which in turn would be confederations of the county organizations in the states. The county medical societies, as the reorganization committees explained, would be "the foundation of the whole superstructure." Henceforth, no doctors could be members of any higher professional association unless they first joined their own county organization. Membership at the county level would then carry with it membership in the state society and the obligation to pay state dues. The organizational structure thus neatly forced all physicians who wanted to belong to their county medical society or to the national AMA to become dues-paying members of their state association.

A rapid transformation quickly took place at the state level. Most of the state medical societies had been no more than nominal organizations, scarcely functioning, with only a small proportion of the profession as members. Since so many vital political decisions, like the enactment of licensure laws, were then being made by state governments,
this had been a serious point of weakness. Now, between 1900 and 1903, in line with the requirements of the new AMA constitution, all but three of the state and territorial medical associations were reorganized on a uniform plan. They turned previously independent county societies into local chapters, gave their members representation in statewide decision-making bodies and assessed them for membership dues. Many of the state organizations began publishing their own monthly journals and employing paid rather than volunteer staff. The results were immediate and positive. The Michigan State Medical Association, reorganized in 1902, within two years increased its membership from 425 to 1,772 and its income from $8,605 to $4,892. The Missouri association, reorganized in 1903, saw its membership rise in one year from 258 to 1,600 and its revenues grow from $774 to $3,300. Between 1902 and 1904, membership in the Ohio Association jumped from 992 to 2,640 and in Tennessee from 386 to 1,097. And so it went. In a remarkably short period, physicians began to achieve the unity and coherence that had so long eluded them. From a mere eight thousand members in 1900, the AMA shot up to seventy thousand in 1910, half the physicians in the country. By 1920 membership had reached sixty percent. From this period dates the power of what came to be called "organized medicine."

The gathering movement in the medical profession was by no means unique at the time. The rise of labor unions and corporations, trade associations, and trusts in the late nineteenth and early twentieth centuries all point to a broader current pulsing in the societyn. In part, physicians were responding to the same developments that facilitated organization in other fields. As railroads and automobiles, telegraphs and telephones promoted national markets and broke down local isolation, groups of all kinds found it at once easier and more necessary to organize nationwide. (The federal structure the AMA adopted in 1902 was, in fact, copied from other national associations.) The growth of national corporations, Richard Hofstadter has suggested, radically altered the distribution of power and status in America, overshadowing local elites and engendering among the professions an acute resentment at their lost influence. This may overstate the power that professionals had earlier. Yet the physicians of the Progressive era do seem to show a sharpened anger and militancy, some of it directed at corporate hegemony. "The members of the profession," wrote an Ohio doctor to the AMA’s Journal in 1901, "are constantly humiliated and insulted by wealthy corporations, state, county and city officials. " Doctors, he complained, had no power compared to organized business or labor. Physicians like himself were forced to work on contract for big corporations
for pitifully low fees; a local steel manufacturer had just refused to pay more than about 60 percent of his bill for emergency services. "As it is, if I do not accept the fees the company offers, the work will go to another physician and the company knows it can get plenty of doctors to do their work for whatever they are willing to pay. What the medical profession needs is a leader, to take it out of the valley of poverty and humiliation, a Mitchell, as the miners have, or a Morgan, as the trusts have."

Yet the replacement of a competitive orientation with a corporate consciousness required more than common interests. It required a transfer of power to the group, and this was what began to happen in medicine around 1900 with changes in its social structure. Physicians came increasingly to rely on each other's good will for their access to patients and facilities. I have already alluded to the instrumental role of the rise of hospitals and specialization in creating greater interdependence among doctors. Physicians also depended more on their colleagues for defense against malpractice suits, which were increasing in frequency. The courts, in working out the rules of liability for medical practice in the late nineteenth century, had set as the standard of care that of the local community where a physician practiced. This limited possible expert testimony against physicians to their immediate colleagues. By adopting the "locality rule," the courts prepared the way for granting considerable power to the local medical society, for it became almost impossible for patients to get testimony against a physician who was a member. Medical societies began to make malpractice defense a direct service. Shortly after the turn of the century, doctors in New York, Chicago, and Cleveland organized common defense funds. The Massachusetts Medical Society began handling malpractice suits in 1908. During the next ten years, it supported accused physicians in all but three of the ninety-four cases it received. Only twelve of those ninety-one cases went to trial, all save one resulting in a victory for the doctor. For its first twenty years, the defense fund of the medical society of the state of Washington won every case it fought. Because of their ability to protect their members, medical societies were able to get low insurance rates, while doctors who did not belong could scarcely get any insurance protection. This provided the sort of "selective incentive" that medical societies needed to help them attract members. Professional ostracism carried increasingly serious consequences: denial of hospital privileges, loss of referrals, loss of malpractice insurance, and, in extreme cases, loss of a license to practice. The local medical fraternity became the arbiter of a doctor's position and fortune, and he could no longer choose to ignore it. By making the county societies the gate-
keeper to membership in any higher professional group, the AMA had recognized and strengthened the position of the local fraternity, as well as bolstering its own organizational underpinnings. Yet the AMA still had to address the problem that originally motivated its formation, control of medical education. The key source of physicians' economic distress in 1900 remained the continuing oversupply of doctors, now made much worse by the increased productivity of physicians as a result of what I referred to in the previous chapter as the squeezing of lost time from the professional working day. The enactment of licensing laws had not cut down the production of doctors; it had only changed its character, promoting the expansion of medical colleges. Toward the end of the nineteenth century, the proliferation of medical schools had accelerated. Between 1850 and 1870, the number had grown from 52 to 75; ten years later, it jumped to 100, in another decade to 153, and by 1900 to 251. This was reflected in a great increase in students, who more than doubled from 11,826 in 1880 to 25,171 twenty years later. While the population of the United States grew 138 percent between 1870 and 1910, the number of physicians increased 153 percent. The immediate beneficiaries of this expansion in supply were the proprietors and professors of the schools, who garnered income and prestige from their positions. But by producing more doctors, the medical colleges exacerbated the competitive relations among physicians. The weakness of the profession was feeding on itself; ultimately, help had to come from outside. The profession could not get off the treadmill it was on until other institutions intervened. That process had already begun in the universities, where educational reformers had a concurrent agenda of their own.

MEDICAL EDUCATION AND THE RESTORATION OF OCCUPATIONAL CONTROL

Reform from Above

Reform of medical education began around 1870 as part of the coming-of-age of American universities. The two developments are historically inseparable. They had their inception at the same institutions and were led by some of the same people, notably Presidents Charles Eliot of Harvard and Daniel Coit Gilman of Johns Hopkins. Before the Civil War, American colleges were intellectual backwaters whose poorly earlier. Yet the physicians of the Progressive era do seem to show a sharpened anger and militance, some of it directed at corporate hegemony. "The members of the profession," wrote an Ohio doctor to the AMA's Journal in 1902, "are constantly humiliated and insulted by wealthy corporations, state, county and city officials." Doctors, he complained, had no power compared to organized business or labor. Physicians like himself were forced to work on contract for big corporations
paid professors had little claim to original thought or research. A variety of forces combined in the wake of the war to infuse some colleges with new life and larger ambitions. Money, leadership, and ideas appeared almost simultaneously. The economy was now producing enough of a surplus to generate the capital necessary to underwrite the development of universities, and there were wealthy men—not many at first, but a few—sufficiently concerned about education to leave them with large endowments. When the Baltimore merchant Johns Hopkins died in 1873, he left $7 million to build a hospital and university—at that time, the largest single endowment in the country’s history. Meanwhile, at some established institutions an older generation of college educators passed from power. Since taking command in the 1820s and 1830s, these men had viewed education as a matter of moral and mental discipline, best inculcated by a prescribed, classical curriculum in which modern languages and modern science had little place. This traditional orientation, while not wholly abandoned, gradually lost ground among their successors, as the conviction grew that higher education ought to have practical value in fitting students for the “real” world. The colleges had long been ridiculed precisely for their irrelevance to contemporary life and work; now their trustees and presidents began to converse in the language of utility. Higher education would satisfy the needs of an expanding economy. For some, this meant greater emphasis on teaching useful skills; for others, a new departure in encouraging research and the development of scientific knowledge. The universities would become worthy of respect; professors would be relieved of petty disciplinary responsibilities, paid better, and given freer rein in their work. For a model, reformers looked to Germany, which had developed a tradition of secular learning and strong universities, and sought to make their own institutions in every way the equal of those in Europe.

In the eyes of reform-minded American educators like Eliot and Gilman, medicine epitomized both the backward state of higher education and the degraded state of the professions in America. “The ignorance and general incompetency of the average graduate of American Medical Schools, at the time when he receives the degree which turns him loose upon the community, is something horrible to contemplate,” Eliot wrote. “The whole system of medical education in this country needs thorough reformation.” The deficiencies had remained the same for decades. Students came to professional schools with minimal preparation; even at the best universities, young men without high school diplomas could easily find admission to study medicine. Students followed medical courses in any order they pleased; the brief two-year program had no regular sequence. In Germany the laboratory sciences of physi-
ology, chemistry, histology, pathological anatomy, and, somewhat later, bacteriology, were revolutionizing medicine, but American medical schools had no laboratories to speak of, let alone a tradition of original research. Didactic lectures remained the principal form of instruction. Students were supposed to learn the art of medicine through apprenticeships, but the medical faculty had no control over their preceptors, who might be completely inadequate. Educational standards were none too strict. To graduate from Harvard Medical School, students needed only to pass a majority of their examinations, no matter if they failed the rest.

When Eliot, who had been trained as a chemist, became president of Harvard in 1869, reorganization of the professional schools was a leading item on his agenda; breaking precedent, he personally presided at meetings of the medical faculty. Before 1869 Harvard Medical School had only a faint connection with the university. As in any proprietary medical college, the faculty collected fees directly from the students, paid the school’s expenses, and divided what was left among themselves. They elected a dean and conducted their own affairs. A few professors favored upgrading the curriculum and standards of admission, but a conservative majority, led by the venerable Henry Bigelow, opposed any change. Bigelow thought higher requirements might keep out a natural genius in the art of healing, and considered training in the related biological sciences useful but not essential. Medical discoveries, he believed, were never made in laboratories. How was it, Bigelow asked at one meeting, that the medical faculty had for eighty years been “managing its own affairs and doing it well,” and now, abruptly, when all was prosperous, great changes were being proposed? After a dead silence, Eliot quietly replied, “I can answer Dr. Bigelow’s question very easily; there is a new President.” By the fall of 1871, Eliot could report that the medical faculty had “resolved to venture upon a complete revolution of the system of medical education.” The school’s finances were placed under the control of the Harvard Corporation, the system of dividing up fees was eliminated, and the professors were given salaries. The academic year was extended from four months to nine; the length of training needed to graduate rose from two years to three. In physiology, chemistry, and pathological anatomy, laboratory work was added to or replaced didactic lectures. Students henceforth would have to pass all their courses to graduate.

The argument long invoked against higher standards in medical education was that they would drive students away and schools into bankruptcy. The reforms at Harvard initially did cause a sharp drop in enrollment, but the faculty held firm through a few difficult years. From
a low of 170 students in 1872, attendance climbed steadily, reaching 263 by 1879; this was still beneath the pre-reform level of 330 ten years earlier, but because tuition had been increased, the school was momentarily in the black. Moreover, the quality of the students improved. The proportion with bachelor’s degrees jumped from 21 percent in the fall of 1869 to 48 percent in 1880. Writing that same year, Eliot remarked that a decade earlier medical students had been “noticeably inferior” in bearing and manner to other students at the university, but now were their equals.12

If competition had once held medical schools in check, preventing any one institution from risking reform, it now began to have the reverse effect. Rivals could not afford to fall behind. In the mid-1870s, fearing a decline in reputation, the trustees of the University of Pennsylvania decided, against the wishes of a conservative dean of the medical faculty, to follow Harvard’s lead and lengthen medical training from two to three years. Previously, in 1847, Penn had tried to extend its terms from four to six months but fell back after losing students to nearby Jefferson Medical College. This time, enrollment fell 22 percent, but as at Harvard, the changes stuck.13 Over the next decade, other leading institutions moved in the same direction. When the more advanced schools formed a national association in 1890, the new group set a minimum standard for member institutions of three years of training, six months a year, with required laboratory work in histology, chemistry, and pathology.14 In the nineties, this organization—now the Association of American Medical Colleges (AAMC)—represented a little more than a third of the nation’s medical schools, but these were firmly in the ascendency. As licensing boards began to impose more stringent requirements, the two-year medical degree faded into obscurity. By 1893 more than 96 percent of the schools required three or more years of work.15

The most radical departure from the old regime took place at Johns Hopkins University, which opened its medical school in 1893 with a four-year program and the unprecedented requirement that all entering students come with college degrees. From the outset, Johns Hopkins embodied a conception of medical education as a field of graduate study, rooted in basic science and hospital medicine, that was eventually to govern all institutions in the country. Scientific research and clinical instruction now moved to center stage. The faculty, rather than being recruited from local practitioners, as had always been the pattern in America, were accomplished men of research, wooed from outside Baltimore. Students were also drawn from a distance and carefully cho-

*This was not the first such effort. A predecessor organization had existed between 1876 and 1882, collapsing as a result of its effort to require a three-year program of its members.
sen; they spent their first two years studying basic laboratory sciences and their last two on the wards, personally responsible for a few patients under the watchful eyes of the faculty. A hospital was built in connection with the school, and the two were conducted as a joint enterprise. Advanced residencies in specialized fields were created. (It was at Hopkins that the term "residency" was first used to describe advanced specialty training following an internship.) Here were the glimmerings of the great university-dominated medical centers of the next century.49

The significance of Johns Hopkins Medical School lay in the new relationships it established. It joined science and research ever more firmly to clinical hospital practice. While apprentices had learned the craft of medicine in their preceptor’s office and the patient’s home, now doctors in training would see medical practice almost entirely on the wards of teaching hospitals. Hopkins also stood for a new synthesis of medicine and the larger culture—a union vividly represented by the two major figures at the school, William Welch and William Osler. Welch, who had done important work in pathology as a young man, and Osler, the great clinician, were both dedicated to research, but they were also broadly educated and had a lively interest in the history and traditions of their profession. Though Hopkins accentuated science, it did not stand for a narrowly technical vision of medicine; this was the secret of its special éclat. It radiated cultural as well as scientific assurance, especially in the person of Osler, whose learning and urbanity made him the profession’s favorite doctor. Welch became its authoritative voice in public affairs. The influence of Johns Hopkins extended far beyond Baltimore. It sent its graduates to medical institutions all over the country and abroad, where, as professors and scientists, they took a major part in shaping the character of medical education and research in the twentieth century.50

Consolidating the System

Sharp contrasts characterized medicine by 1900. The changes in progress at Harvard, Johns Hopkins, and other universities were counterpointed by the continuing growth of commercial medical colleges. In 1890 there had been no example of an alternative in medical education; fifty years later, the alternative had begun to take shape but was yet to prevail. Despite the new licensing laws, the ports of entry into medicine were still wide open, and the unwelcome passed through in great numbers. At proprietary schools and some of the weaker medical departments of universities, the ranks of the profession were being re-
The Consolidation of Authority 1850-1930

Among those who entered medicine in increasing numbers were women. In the second half of the nineteenth century, seventeen medical colleges for women were founded in the United States. A long struggle for admission to the elite medical schools finally brought victory in 1893. Strapped for funds, Johns Hopkins agreed to accept women into its medical school in return for a half million dollars in endowment money contributed by wealthy women. In effect, American women were forced to buy their way into elite medical education. Many of those who had fought to establish separate women's medical colleges now thought their function was unnecessary. The women's schools began to close or merge as women gained entry to schools that trained men. By 1893-94, women represented 10 percent or more of the students at 19 coeducational medical schools. Between 1886 and 1900, the percentage of doctors who were women increased nationally from 2.8 to 5.6 percent. In some cities the proportion of women was considerably higher: 18.2 percent of doctors in Boston, 19.3 percent in Minneapolis, 13.8 percent in San Francisco. With more than 7,000 women physicians at the turn of the century, the United States was far ahead of England, which had just 258, and France, which had only 95. The increasing numbers of women in American medicine, however, brought in their train a growing reaction from men in the field. After its own reorganization, the American Medical Association made reform of medical schools a top priority. Since there was no chance of intervention by the federal government, any national action would have to be undertaken by the association itself, via the state licensing boards, which its members controlled. In 1904 the AMA established a Council on Medical Education, composed of five medical professors from major universities, with a permanent secretary, a regular budget, and a mandate to elevate and standardize the requirements for medical education. As one of its first acts, the council formulated a minimum standard for physicians calling for four years of high school, an equal period of medical training, and passage of a licensing test; its "ideal" standard stipulated five years of medical school (including one year of basic sciences, later pushed into the "premedical" curriculum in col-
lege) and a sixth of hospital internship. In an effort to identify and pressure weaker institutions, the AMA council began grading medical schools according to the record of their graduates on state licensing examinations; later it extended the evaluation to include curriculum, facilities, faculty, and requirements for admission. In 1906 it inspected the 760 schools then in existence and fully approved of only 82, which it rated Class A. Class B consisted of 46 imperfect, but redeemable, institutions, while 33, beyond salvage, fell into Class C. The results of the survey were disclosed at an AMA meeting, but were never published for fear of the ill will they would create. Professional ethics forbade physicians from taking up cudgels against each other in public; it would have been unseemly for the AMA to have violated its own code. Instead, the AMA council invited an outside group, the Carnegie Foundation for the Advancement of Teaching, to conduct a similar investigation.6 The foundation agreed, and chose for the task a young educator, Abraham Flexner, who had taken a bachelor's degree at Johns Hopkins and whose brother Simon was a protégé of William Welch and president of the Rockefeller Institute for Medical Research.

Well before Flexner's report was published in 1910, the number of medical schools had begun to decline, dropping from a high point of 153 in 1861 to 134 four years later, a loss of almost one fifth. The turnaround came as the steadily rising requirements set by state licensing boards and other authorities gradually altered the economics of medical education for students and schools alike. The new requirements extending the length of medical training imposed increasingly large opportunity costs on prospective physicians. The academic year, time almost wholly lost for earnings, went from four to eight or nine months, and the total period of training from two years, possibly without high school, to four, then five, and eventually more than eight years beyond high school. Under the emerging system, young doctors could scarcely hope to be making a living on their own before age thirty. Higher tuition fees added to the change. The combined rise in indirect and direct costs produced a long-term decline in the number of medical students. This was especially evident among many schools of the second and third rank that later became extinct.6 They could ill afford losses of enrollment. Medical schools were then facing greatly increased expenses under the new requirements for modern laboratories, libraries, and clinical facilities. No institution could defray all these costs out of their tuition charges, and since the commercial schools had no other source of income, they went under. These changing economic realities, rather than the Flexner report, were what killed so many medical schools in the years after 1906.
The proprietary medical colleges faced a Hobson's choice. If they ignored the new standards for medical education, their diplomas would cease to be recognized by state licensing boards and students would lose any incentive to enroll. If, on the other hand, they tried to comply with the standards, they would be rewarded with fewer students and higher costs because of the more stringent preliminary requirements, longer period of training, and more expensive facilities and equipment. Only a few courses of action were available to them. One option was to seek a merger with the medical school of a private or state university, which could draw on income from endowments or state assistance. Many second-rank schools did exactly that. Another option was, quite simply, fraud—to pretend to comply with the new standards without following through and incurring the expense. Many did that too. The commercial schools that resisted merger or bankruptcy were almost inevitably forced into misrepresentation.

This was the setting for the Flexner report. Accompanied by the secretary of the AMA Council on Medical Education, Flexner visited each of the nation's medical schools. As a representative of the Carnegie Foundation, thought to be on a scouting mission for the philanthropist, he no doubt had doors opened to him that otherwise would have been closed. To desperate deans and professors, the name Carnegie must have called up dancing visions of endowment plums. If so, the daydreams must have quickly vanished on publication of Flexner's famous Bulletin Number Four. Though a layman, he was much more severe in his judgment of particular institutions than the AMA had been in any of its annual guides to American medical schools. The association was constrained by possible suspicion of its motives; Flexner felt no such compunctions. Repeatedly, with a deft use of detail and biting humor, he showed that the claims made by the weaker, mostly proprietary schools in their catalogues were patently false. Touted laboratories were nowhere to be found, or consisted of a few vagrant test tubes squirreled away in a cigar box; corpses reeked because of the failure to use disinfectant in the dissecting rooms. Libraries had no books; alleged faculty members were busily occupied in private practice. Purported requirements for admission were waived for anyone who would pay the fees. None of this was really new. But while the problems were ancient, they now had a different meaning. In the 1800s, medical schools did not need to pretend to have all the facilities that were being demanded in 1910. (Even Harvard, after all, had no physiology laboratory before 1878.) Now many of the schools claimed to be what they clearly were not; and in doing so, they implicitly acknowledged the legitimacy of the standards that Flexner was exacting of them and made
themselves more vulnerable to public exposure and embarrassment.

As Flexner saw it, a great discrepancy had opened up between medi-
cal science and medical education. While science had progressed, edu-
cation had lagged behind. "Society reaps at this moment but a small fraction of the advantage which current knowledge has the power to confer." America had some of the world's best medical schools, but also many of the worst. Flexner's recommendations were straightforward. The first-class schools had to be strengthened on the model of Johns Hopkins, and a few from the middle ranks had to be raised to that high standard; the remainder, the great majority of schools, ought to be ex-
tinguished. America was oversupplied with badly trained practitioners; it could do with fewer but better doctors. 66 This was also the view of professional leaders, but it would be mistaken to dismiss Flexner as an agent of the AMA. He was a man of strong intellectual commitments, which guided him in a long career of educational reform. The closing of medical schools greatly enhanced the market position of private phy-
sicians, but Flexner himself had an aristocratic disdain for things com-
mercial. And precisely because of this high-minded, unmercenary spir-
it, his report more successfully legitimated the profession's interest in limiting the number of medical schools and the supply of physicians than anything the AMA might have put out on its own.

So much credit—and blame—has been awarded to Flexner for the
demise of small medical colleges in the first decades of the century that it may be somewhat difficult to put his report in perspective. The schools were condemned primarily by the changes in licensing rather than by Bulletin Number Four. At most, Flexner hastened the schools to their graves and deprived them of mourners. He himself recognized the primacy of economic considerations. Nearly half of the medical schools, he reported, had an annual income below $10,000; their exist-
tence was precarious. They were unable to comply, as he wrote, "even in a perfunctory manner with statutory, not to say scientific, require-
ments and show a profit." 67 The schools were at the end of their tether; at that point, it was relatively easy to strangle them.

The process of consolidation in medical education moved apace in the decade after 1910. By 1915 the number of schools had fallen from 131 to 95, and the number of graduates from 5,440 to 3,356. Mergers were common among Class A and B schools; Class C schools were often disbanded for want of students. In five years, the schools requiring at least one year of college work grew from thirty-five to eighty-three, or from 27 percent of the total in 1910 to 80 percent in 1915. Licensing boards demanding college work increased from eight to eighteen. In 1912 a number of boards formed a voluntary association, the Federation
of State Medical Boards, which accepted the AMA's rating of medical schools as authoritative. The AMA Council effectively became a national accrediting agency for medical schools, as an increasing number of states adopted its judgments of unacceptable institutions. In the fall of 1914, a year of college work as a prerequisite for admission became essential for a Class A rating from the AMA; two years of college were required in 1918. By 1922 thirty-eight states were requiring two years of college in preliminary work, the number of medical schools had fallen to 81, and graduates to 2,526. Even though no legislative body ever set up either the Federation of State Medical Boards or the AMA Council on Medical Education, their decisions came to have the force of law. This was an extraordinary achievement for the organized profession. Only a few decades earlier, many people had believed that the decentralized character of American government precluded any effective regulation of medical education. If one state raised its requirements, students would simply gravitate to schools elsewhere. Short of federal intervention, control seemed impossible. But the medical profession had carried its effort to every state, and its success was a measure of how far it had come since the mid-1800s.

The consolidation never went as far as Flexner or the AMA wanted it to go. Bulletin Number Four recommended that the number of medical schools be reduced to thirty-one; actually, more than seventy survived. Flexner would have left about twenty states without any medical schools, but this proved politically unacceptable. Legislatures stepped in to maintain at least one institution in their state. Had the United States been as centralized in its educational system as European countries, there might well have been fewer survivors.

Whatever its influence on public opinion, the Flexner report crystallized a view that proved immensely important in guiding the major foundations' investments in medical care over the next two crucial decades. In a sense, the report was the manifesto of a program that by 1936 guided $91 million from Rockefeller's General Education Board (plus millions more from other foundations) to a select group of medical schools. Seven institutions received over two thirds of the funds from the General Education Board. Though the board represented itself as a purely neutral force responding to the dictates of science and the wishes of the medical schools, its staff actively sought to impose a model of medical education more closely wedded to research than to medical practice. These policies determined not so much which institutions would survive as which would dominate, how they would be run, and what ideals would prevail.

State legislatures wanted medical schools to supply local needs for...
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physicians, but they generally could not be persuaded to invest in research or in building national institutions. Their purposes were limited—and quite understandably so. Research in medicine is typically a "public good," and an individual state, like a particular corporation, is unlikely to recover enough of the gains to society at large to justify the costs to itself. Hence state legislatures and private corporations will almost always rationally underinvest in basic scientific research. The situation of philanthropists, on the other hand, was entirely different. Their interest lay in legitimating their wealth and power by publicly demonstrating their good works. Medical research and education advertised their moral responsibility in ways congruent with the cultural standards of an age that increasingly revered science. As they did business on a national scale, so they did philanthropy.112

The assimilation of medical education into the universities drew academic medicine away from private practice. During the nineteenth century, the medical schools had been organizations of the dominant practitioners in a community. In the twentieth century, academic and private physicians began to diverge and represent distinctive interests and values. A pivotal step in the differentiation of the two groups was the creation of the first full-time academic positions in clinical medicine. Beginning in the 1870s, the laboratory sciences at Class A medical schools had been placed on a full-time basis, but clinical instruction had continued in the hands of physicians who also maintained private practices. This arrangement had one notable advantage for the medical schools: It held down costs. At the University of Pennsylvania in 1891, while professors in the laboratory sciences were receiving $3,000 a year, the senior clinical professors were paid only $8,000. Under the old system of dividing up student fees among the faculty, they would have taken in three or four times as much. But their incomes from private practice had risen because, as specialists, they were able to command higher fees for consultations. Clinical professorships had now become desirable almost entirely for their indirect value in augmenting private consulting practices, rather than for their direct income.113 However, the time and attention these professors diverted to their private patients disturbed those who wanted to improve clinical teaching and research. Why, Simon Flexner and others asked, should academic positions in clinical medicine require less commitment than positions in the laboratory sciences? In 1907 Dean Welch of Johns Hopkins gave his support to full-time clinical professorships; Osler, row at Oxford, dissented, warning that teacher and student might become wholly absorbed in research and neglect "those wider interests to which a great hospital must minister." It would be "a very good thing for science, but a very
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bad thing for the profession. But prodded by the General Education Board, some medical schools made clinical teaching full-time. Chicago, Yale, Vanderbilt, and Washington University in St. Louis restructured their clinical departments to meet the board’s condition for grants. However, the board’s insistence on full-time appointments aroused resentment, and the policy was dropped in 1925.

As American medical education became increasingly dominated by scientists and researchers, doctors came to be trained according to the values and standards of academic specialists. Many have argued that this was a mistake. They would have preferred to see only a few schools like Johns Hopkins training scientists and specialists, while the rest, with more modest programs, turned out general practitioners to take care of the everyday illnesses that make up the greater part of medical work. But this was not the course that American medical education followed; the same curriculum and requirements were established for all students.

The emphasis on the basic sciences initially ran counter to the inclinations of many in the profession. Bigelow’s initial reaction to Eliot’s reforms at Harvard in 1870 was typical of a widespread aversion to basic science among physicians. Even after 1900 the traditionalists did not give up without a fight. At schools like the University of Pennsylvania and Washington University, there were intense and occasionally bitter struggles for control between the old-line practitioners and the insurgent party of research scientists. The foundation-sponsored victory of the Johns Hopkins model prevented American medicine from remaining as practical in its orientation as might have been its natural tendency. On the other hand, Flexner would have preferred medical education to have more of the flexibility of graduate education in the arts and sciences: he felt that the uniformity of medical education stifled creative work. In the years after his report was published, he became increasingly disenchanted with the rigidity of the educational standards that had become identified with his name.

The Aftermath of Reform

The new system greatly increased the homogeneity and cohesiveness of the profession. The extended period of training helped to instill common values and beliefs among doctors, and the uniformity of the medical curriculum discouraged sectarian divisions. Under the old system of apprenticeships with solo practitioners, doctors acquired more idiosyncratic views of medicine and formed personal attachments with their preceptors rather than their peers. Hospital internships generated a stronger sense of shared identity among contemporaries. In 1904,
when the AMA first investigated internships, it estimated that about 50 percent of physicians went on to hospital training; by 1912 75 to 80 percent of graduates were estimated to be taking internships. The AMA published its first listing of internships in 1914, and by 1923, for the first time, there were enough openings to accommodate all graduates.¹⁰⁰

The profession grew more uniform in its social composition. The high costs of medical education and more stringent requirements limited the entry of students from the lower and working classes. And deliberate policies of discrimination against Jews, women, and blacks promoted still greater social homogeneity. The opening of medicine to immigrants and women, which the competitive system of medical education allowed in the 1890s, was now reversed.

The influx of women into the medical profession had already begun to ebb before publication of the Flexner report. By 1909 only three women's medical colleges still existed; the total number of women medical students, including those at coeducational schools, had dropped to 391 from 1,419 fifteen years earlier. The growing number of women doctors in the late nineteenth century may have been partly a product of Victorian concerns about the propriety of male physicians examining women's bodies. Conversely, the fall in their number may have stemmed partly from the waning of the Victorian sensibility. In his 1910 report, Flexner thought the declining numbers of women reflected declining demand for women doctors or declining interest among women in becoming physicians. Others, however, have since pointed to the active hostility of men in the profession. As places in medical school became more scarce, schools that previously had liberal policies toward women increasingly excluded them. Administrators justified outright discrimination against qualified women candidates on the grounds that they would not continue to practice after marriage. For the next half century after 1900, except for wartime, the schools maintained quotas limiting women to about 5 percent of medical student admissions.¹¹⁰

Before the Flexner report, there had been seven medical schools for blacks in the United States; only Howard and Meharry survived. Blacks also faced outright exclusion from internships and from hospital privileges at all but a few institutions. The scarcity of opportunities for training and practice had a material impact. In 1930 only one of every 3,000 black Americans was a doctor, and in the Deep South, the situation was even worse—in Mississippi, blacks had one doctor for every 14,634 persons.¹¹¹

In the controversy over the reform of medical education, one objection frequently raised against eliminating the proprietary medical colleges was that they provided poor communities with doctors and poor
children with an opportunity to enter medicine. Flexner denied in his report that the "poor boy" had any right to enter medicine "unless it is best for society that he should," and he made no allowance for the inability of low-income communities to pay for the services of highly-trained physicians. From a medical school in Chattanooga, Tennessee, one doctor responded, "True, our entrance requirements are not the same as those of the University of Pennsylvania or Harvard; nor do we pretend to turn out the same sort of finished product. Yet we prepare worthy, ambitious men who have striven hard with small opportunities and risen above their surroundings to become family doctors to the farmers of the south, and to the smaller towns of the mining districts." The graduates of the larger schools, he added, could never be expected to settle in these communities. "Would you say that such people should be denied physicians? Can the wealthy who are in a minority say to the poor majority, you shall not have a doctor?" 213

But that was, implicitly, what they did say.

Flexner insisted in his report that a kind of "spontaneous dispersion" would spread the graduates of the top medical schools to the four winds. 12 On this matter, he proved quite wrong. Doctors gravitated strongly to the wealthier areas of the country. A 1928 study by the biostatistician Raymond Pearl showed that the distribution of physicians by region in the United States was closely correlated with per capita income. Doctors, Pearl concluded, behaved the way all "sensible people" might be expected to. "They do business where business is good and avoid places where it is bad." 121

The declining output of medical schools aggravated shortages of physicians in poor and rural areas, but regional inequalities in the availability of physicians had actually been increasing since the Civil War. Between 1870 and 1920, the poorer states lost physicians relative to population, while the wealthier states gained them. For example, in 1870 for every doctor in South Carolina there were 894 persons, compared with 711 persons per doctor in Massachusetts; by 1920, the number of people per doctor had risen to 1,270 in South Carolina and fallen in Massachusetts to 407. The disparities between cities and rural areas were also growing.122

These widening inequalities reflected the changing economic realities of medical practice I discussed in the previous chapter. Where local transportation improved, the market for medical services expanded. The development of hard roads and public transportation and the spread of telephone systems were far more rapid in the wealthier, more urban states. On the basis of such strictly ecological considerations, these areas could support a higher population of doctors. As railways
and autos became common in rural areas, the village physician who for-
merly enjoyed a quiet local monopoly was exposed to the competition
of doctors and hospitals in nearby towns and cities. The shift in distribu-
tion that began in the late nineteenth century was a response to these
underlying changes in the market.

The increasing cost of medical education ensured that many small
towns and rural areas would lose the services of any physician. In the
twenties, articles began to appear in the popular press about the "van-
ish ing country doctor." A study by AMA President William Allen Pusey
showed that more than a third of 910 small towns that had physicians
in 1914 had been abandoned by doctors by 1925. "As you increase the
cost of the license to practice medicine you increase the price at which
medical service must be sold and you correspondingly decrease the
number of people who can afford to buy this medical service," wrote
Pusey. He expressed particular concern about data he had collected
showing that irregular practitioners were settling in the counties aban-
donied by physicians.118

In the twenties, even Flexner became convinced that the distribution
of physicians was a more serious problem than he had originally antici-
pated. Through the General Education Board he supervised a study
that showed a growing gap in medical service between town and city.
In 1906 small towns (population 1,000 to 2,500) had 590 people per doc-
tor, while large cities (population over 100,000) had 492. By 1923 the
small towns had 910 people per doctor, the large cities 536. The small
towns' deficit had grown from about 20 to 70 percent.117 The study in-
sisted, however, that there was still an overall surplus of doctors since
many physicians were underemployed.

After the turn of the century, the supply of physicians did not keep
pace with the population as a whole. According to Census data, in 1900
there were 173 physicians per 100,000 population, but only 164 in 1910.
(Somewhat different AMA statistics give lower figures, 157 and 146 re-
spectively.) By 1920 the ratio of doctors to population was down to 157
per 100,000 and ten years later to 125 per 100,000, where it bottomed
out for the next two decades.118

Though physicians had succeeded in controlling their own numbers,
they could not prevent rival practitioners from winning legal protec-
tion and staying in business. Despite vehement medical opposition, os-
teopaths and chiropractors were able to obtain licensing laws in nearly
every state. Even where the chiropractors were unsuccessful in gaining
statutory approval, they practiced openly, sometimes in greater num-
bers than in states where they were licensed. At the end of the twenties,
there were an estimated 36,000 sectarians in practice,119 compared to
about 150,000 physicians—or about the same ratio as homeopaths and Eclectics bore to regular physicians fifty years earlier. However, the sectarian practitioners of the twentieth century were in a vastly different situation from their forerunners. In winning licensing privileges, the new sectarians were usually unable to win access to hospitals or the right to prescribe drugs. Unlike the homeopaths in the mid-nineteenth century, they did not represent a serious challenge to the profession. According to a survey of nine thousand families carried out over the years 1928 to 1933, all the non-M.D. practitioners combined—osteopaths, chiropractors, Christian Scientists and other faith healers, midwives, and chiropodists—took care of only 5.3 percent of all attended cases of illness.10 Physicians finally had medical practice pretty much to themselves.

THE RETREAT OF PRIVATE JUDGMENT

Authority over Medication

Medical practitioners, of whatever kind, were not the only source of treatment available on the market in the nineteenth century. The patent medicine makers, whose advertisements were ubiquitous in the popular press, also offered therapy and advice. Since nineteenth-century practitioners often prepared their own medicines, the patent medicine companies were their direct competitors. The companies, furthermore, not only sold drugs, but also distributed guides to health and invited the puzzled and the sick to write them for advice about their medical problems. From the standpoint of financial resources, they were a more formidable alternative to regular physicians than were the medical sects. The money they spent on advertising assured a wide distribution to their propaganda and induced many newspapers to defend them.

The nostrum makers were the nemesis of the physicians. They mangled, distorted, derided, and undercut the authority of the profession. While they often claimed to be doctors themselves, or to operate health institutes or medical colleges, or to have the endorsement of eminent physicians, they also frequently insinuated that the profession was jealously conspiring to suppress their discoveries. The contrasts they drew were vivid. Doctors wanted to cut people up or give prolonged treatment, while their "sure cure" would instantly provide relief. Physicians
charged high fees, their remedies were cheap. When new scientific ideas appeared, the patent medicine makers were quick to exploit them. In the late 1880s, an ingenious Texan, William Radam, promoted a Microbe Killer that played upon public misunderstanding of the recent discoveries of Pasteur and Koch. Consisting nearly entirely of water—except for traces of red wine, hydrochloric and sulphuric acid—Microbe Killer was supposed to cure all diseases by destroying germs inside the body. By 1890 Radam had seventeen factories producing the Killer. Doctors, he explained, tried to deceive the public by doing elaborate and useless diagnoses: “Diagnosing disease is simply blindfolding the public.” Reflecting on Radam’s success, the historian James Harvey Young notes the irony that the age in which physicians could for the first time accurately explain much disease “was the very age in which patent medicines reached their apogee.”

The patent medicine makers played upon the changing forms of discontent with physicians. Advertising for such popular remedies as Lydia Pinkham’s Vegetable Compound—introduced in 1876 for “E-MALE WEAKNESSES,” “All Weaknesses of the generative organs of either Sex,” and “all diseases of the Kidneys”—frequently appealed to fears of medical treatment, especially surgery. In 1879, as Sarah Stage reports in her history of the Pinkham company, the firm began inviting readers to “Write Mrs. Pinkham” about their medical complaints (a practice that continued even after Lydia Pinkham died in 1883). One woman suffering from a prolapsed uterus wrote, “Dr. tells me I can have the trouble removed but thought I would write and ask you if the Compound would do it before I submitted to an operation with Doctor’s tools, a thing I have not much faith in.” The company replied, “By all means avoid instrumental treatment for your trouble. Use the Compound as you have been using it—faithfully and patiently—and it will eventually work a cure. . . .” In the late 1890s the Pinkham company began increasingly to appeal to Victorian modesty to draw women away from doctors. “Do you want a strange man to hear all about your particular diseases?” asked one advertisement with the headline, “The Doctor Did No Good.” And the company promised, “Men NEVER See Your Letters.”

From its founding, the AMA was at odds with the patent medicine business. It divided drugs into “ethical” preparations of known composition advertised only to the profession, and patent medicines of secret composition sold directly to the public. (Most “patent” medicines were actually not patented since a patent required disclosure of the formula; technically, they were “proprietary” drugs whose trademarks were protected by copyright.) Initially, the AMA rejected as unethical any
secret formula or any private appropriation of medical knowledge or techniques, which it maintained ought to belong collectively to the profession. However, the A.M.A. was powerless to enforce these views. In 1849 the association resolved to create a board to evaluate nostrums but proved unable to do so for lack of resources. In the late nineteenth century, proprietary drugs became more widely used, and professional concern about them intensified. Advertisements for such drugs filled the medical journals as well as the newspapers, and doctors, though often ignorant of their composition and effects, increasingly prescribed them. A survey of New York drugstores showed a steady increase in nostrums and machine-made tablets, as a proportion of physician prescriptions, from less than 1 percent as late as 1874 to 20 to 25 percent by 1902.103 In 1900 the A.M.A. launched a campaign to make the "legitimate" proprietary remedies "resound to the ethics of medicine" by forcing their manufacturers to disclose all formulae and cease public advertising. Its journal announced that it would stop publishing all notices of offending drugs when current advertising contracts expired.

And it urged physicians not to prescribe, nor other medical journals to advertise, either secret preparations or drugs "advertised directly to the laity."104 However, no major campaign materialized, and the drug companies continued to advertise in many medical journals, which, like newspapers, depended on them for revenues.

Between 1900 and 1910, three changes enabled the medical profession to wrest control of the flow of pharmaceutical information. First, and perhaps most important, muckraking journalists and other Progressives joined physicians in a crusade for regulation of patent medicines as part of a more general assault on deceptive business practices. Second, as a result of its growing membership, the A.M.A. finally acquired the financial resources to create its own regulatory apparatus and to mount a major effort against the nostrum makers. And, third, the drug makers were forced to recognize that they depended increasingly on doctors to market their drugs because of the public's increased reliance on professional opinion in decisions about medication.

Public reliance on professional opinion may have been stimulated by muckraking revelations about how dangerous many patent medicines were. Beginning about 1903, domestic magazines like the Ladies' Home Journal continually warned women about the imprudence of self-medication. Edward Bok, the journal's editor, pointed to drugs and syrups containing opium, cocaine, and alcohol, which unsuspecting mothers used themselves or gave to their children. "The physician's fee of a dollar or two, which the mother seeks to save, may prove to be the costliest form of economy which she has ever practiced."105
Probably the most famous investigations of the drug industry in American history began appearing in *Collier's Weekly* in October 1905. In two series—the first on patent medicines, the second on medical quacks—the muckraking reporter Samuel Hopkins Adams explored the cynical deceptions of medicine makers and medicine men who sold dangerous and addictive drugs. Adams attacked 264 individuals and companies by name, giving detailed evidence, such as laboratory reports showing drugs were worthless and burial notices of people who gave testimonials to drug companies and then died from the diseases that were supposed to have been cured. In an article on headache pow-
ders containing the deadly drug acetanilid, Adams listed people who had taken them and died soon after, and he warned, "There is but one safeguard in the use of these remedies; to regard them as one would regard opium, and to employ them only with the consent of a physician who understands their true nature." The message underlying the exposés was that commercial interests were dangerous to health and that physicians had to be trusted. In the first article of the series, *Collier's* reprinted a poster from a Chicago drugstore showing two figures: a healthy workingman "before using" and a skeleton "after using" "Hoodwink's Sarsaparilla or any other old 'Patent Medicines.'" Below was written:

*MORAL*

Don't Dose Yourself with secret Patent Medicines, Almost all of which are Frauds and Humbugs. When sick Consult a Doctor and take his Prescription: it is the only Sensible Way and you'll find it Cheaper in the end.

The muckrakers utterly discredited the claims of the patent medicine companies to provide personal medical advice. In the *Ladies' Home Journal*, a young reporter, Mark Sullivan, wrote about "How the Private Confidences of Women Are Laughed At" and "How the Game of Medical Advice Is Worked." With devastating effect, Bok reprinted notices indicating that the patent medicine makers rented the letters of women seeking confidential advice to companies that compiled mailing lists. Next to a copy of an advertisement urging women to write Lydia Pinkham, he published a picture of her tombstone showing she had been dead twenty years. "The whole 'personal medical advice' business," wrote Samuel Hopkins Adams, "is managed by rote, and the letter that you get 'special to your case' has been printed and signed before your inquiry ever reached the shark who gets your money." The second part of Adams' series, dealing with quack physicians, portrayed them as fakes and parasites on human misery, promising illusory cures for tuberculosis, cancer, and drug addiction. Some of these doc-
tors, Adams suggested, used addictive drugs themselves. "How shall the public protect itself against quackery?" Adams asked.

Any physician who advertises a positive cure for any disease, who issues nostrum testimonials, who sells his services to a secret remedy, or who diagnoses and treats by mail patients he has never seen, is a quack. . . . Shut your eyes to the medical columns of the newspapers, and you will save yourself many forebodings and symptoms. Printer's ink, when it spells out a doctor's promise to cure, is one of the subtlest and most dangerous of poisons."

The AMA distributed over 150,000 copies of "The Great American Fraud" over the next five years. Adams' series was to the proprietary drug makers and advertising doctors what the Flexner report five years later would be to the proprietary medical schools: a withering investigation of deceit by commercial interests that contributed to the consolidation of professional authority.

In 1906, on the heels of "The Great American Fraud" and Upton Sinclair's novel The Jungle exposing adulteration in the meat-packing industry, Congress passed the Pure Food and Drug Act. The act marks the beginning of federal drug regulation, but the law affected only the most arrant fakes. It did not require the disclosure of all contents, except in the case of narcotics; it only banned statements on the label of a drug about its composition that were "false and fraudulent." This rule did not initially apply to claims about the effectiveness of drugs, nor to statements made in newspaper advertisements. After some initial caution, drug makers discovered they could resume making bold claims, even intimating that their drugs now met a federal standard of purity and effectiveness. But although the law initially amounted to little, another regulatory system was also being established at the time that would, for the next several decades, be more consequential.

In 1905, after definitively closing its Journal to patent medicine advertisements, the AMA established a Council on Pharmacy and Chemistry to set standards for drugs, evaluate them, and lead the battle against nostrums. As part of this effort, it set up a laboratory and maintained close contact with the federal Bureau of Chemistry, which tested products under the food and drug law. This was one of several new undertakings the AMA's growing financial strength permitted. The council's publication New and Nonofficial Remedies became widely used by medical journals in setting advertising policies and by doctors in prescribing. When one company refused to submit its products for examination, a member of the council remarked that its work would be simplified if it could "induce all the objectionable manufacturers to commit this form of suicide."
To have its drugs accepted, a company had to comply with the AMA council's rules. Not only were drugs forbidden whose manufacturers made false advertising claims or refused to disclose their drugs' composition. The council also would not approve any drug that was directly advertised to the public, or whose "label, package or circular" listed the diseases for which the drug was to be used. Companies would have a choice of markets: If they wished to advertise a drug to doctors, they could not advertise it to the public or instruct laymen in its use. For such drugs, the public would have to turn to physicians.

The AMA also institutionalized the work of the muckrakers. It set up an office to pursue fraudulent drugs and shame publishers of journals and newspapers into dropping all advertisements of patent medicines. The association denied that any distinctions could be made among patent medicines: "[T]here is no such thing as an unobjectionable 'patent medicine' advertisement in a newspaper," the editor of its journal declared. The struggle to suppress such advertising put the profession in the position of demanding that newspapers sacrifice a lucrative source of income for the sake of public health and public respectability. It is a measure of the profession's new authority that, despite the financial loss, many newspapers began to censor patent medicine advertisements and rule out those listed as frauds by the AMA. A few states passed laws making it illegal for newspapers to publish any advertisements for doctors. The magnitude of the AMA's achievement was evident by 1919, when the U.S. Public Health Service sent out a circular to 20,000 periodicals and found that more than 19,000 refused to carry any advertisements for doctors.

Neither federal regulation nor the AMA prevented proprietary drug companies from marketing drugs to the public; nor did they bar people from self-treatment. But the drug companies now labored under more rigid constraints about the claims they could make. The federal law was amended in 1912 to cover fraudulent claims of effectiveness and administratively extended in the 1920s to cover newspaper advertising as well as labels. In this period, the patent medicine makers beat a steady retreat. By 1915 the Pinkham company, for example, omitted any reference to prolapsed uterus in its advertising, and ten years later all mention of female disorders disappeared. The label now said it was "Recommended as a Vegetable Tonic in conditions for which this preparation is Adapted." The AMA official in charge of the nostrum campaign suggested it might just as well read, "For Those Who Like This Sort of Thing, This is the Sort of Thing That Those People Like." Before regulation, scientific medicine had to compete with the claims of patent medicine companies, and amid this cacophony its voice was not
always audible. Drug regulation turned down the volume of patent medicine claims and allowed scientific medicine to be heard more clearly.

Recognizing that public opinion had shifted, the patent medicine companies became more deferential to the medical profession. In the 1919 edition of *The People's Common Sense Medical Advisor*, Dr. R. V. Pierce, who had been one of the targets of Adams' investigations, conceded that he was not so "presumptuous" as to claim his book could make "every man his own physician." Urging his readers to consult a physician immediately in serious illness, he wrote, "No man can with advantage be his own lawyer, carpenter, tailor and printer; much less can he hope to artfully repair his own constitution."124

As physicians became more authoritative, many drug companies found it wiser to address their appeals for new products to the profession. But to do so, they were obliged to comply with the AMA's terms and withdraw advertising for those products from the public. In 1924 the AMA Council on Pharmacy and Chemistry ruled that a drug could be denied approval if a company derived much of its earnings from other products that were not in compliance with AMA guidelines.126 The council did not want to let companies play both sides of the street with different drugs. Consequently, companies had to opt entirely for one side or the other.

The AMA's regulatory system did not merely augment the federal effort. The logic of the 1906 law was to improve the functioning of the market by making consumer information more accurate.128 The logic of the AMA's regulatory system was to withhold information from consumers and rechannel drug purchasing through physicians. This shift meant a structural change in the market rather than simply an improvement in its functioning, and it gave physicians a larger share of the purchasing power of their patients.

The profession also extended its authority into other markets related to health. When manufacturers introduced infant food preparations in the late 1800s, they advertised widely in newspapers and magazines as well as in the medical press. The directions were simple: To prepare Nestlé's Milk Food, introduced in the United States in 1873, a mother had only to add water. Like the patent medicine companies, the infant food producers represented an alternative to physicians in an area of decision making that doctors and reformers believed required professional rather than commercial control. "The proper authority for establishing rules for substitute feeding," wrote a noted pediatrician in 1899, "should emanate from the medical profession, and not from non-medical capitalists."127
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The shift to dependence on physicians in infant feeding followed the same pattern as in the use of drugs. Increasingly, the child-care literature counseled parents to consult a physician about their baby’s diet. In the 1910s manufacturers discovered that advertising exclusively to the medical profession on its terms could be a more efficient way to market their products than by attempting to reach a far more diffuse public. When Mead Johnson began selling a milk modifier called Dextri-Maltose in 1912, it advertised it only to physicians; no directions were enclosed for the mother. The success of Dextri-Maltose and another such product, writes Rima Apple, “demonstrated to other companies that such advertising policies could result in a satisfactory compromise between the needs of the manufacturers to sell their products, and the desire of the physicians to control the distribution and use of the infant foods.” In introducing a new product in 1914, Nestlé advertised in the AMA’s Journal that it would be “sold only on the prescription or recommendation of a physician. No feeding instructions appear on the trade package.” Mead-Johnson put the point directly in its medical advertising: “When mothers in America feed their babies by lay advice, the control of your pediatric cases passes out of your hands, Doctor.” Since Mead-Johnson advertised only to doctors, it shared the same interest as physicians in persuading mothers to follow professional advice.

Medical authority in prescribing drugs and other products enabled the AMA to stand between the manufacturers and their markets. This strategic gatekeeping role permitted the AMA, in effect, to levy an advertising toll on the producers. Revenues from journal advertisements became the principal source of funds for the association. In 1912 the AMA set up a cooperative advertising bureau, which channeled advertisements to state medical journals. The bureau gave the AMA considerable financial leverage over the state medical societies and helped bind the national association even more tightly together. Once again, cultural authority was being converted into economic power and effective political organization.

Ambiguity and Competence

The campaign against patent medicines reflected the extraordinary new confidence and authority that the medical profession enjoyed in the Progressive era. This confidence did not stem specifically from the development of effective therapeutic agents, which were still few in number. Even if they had been more numerous, new drugs alone could not explain the retreat of private judgment in their use. The growth of medical authority was related more to the success of science in revo-
Nineteenth-century medical science had its earliest successful applications in public hygiene. The key scientific breakthroughs in bacteriology came in the 1860s and 1870s in the work of Pasteur and Koch. The 1880s saw the extension and diffusion of these discoveries, and by 1890 their impact began to be felt. The isolation of the organisms responsible for the major infectious diseases led public health officials to shift from the older, relatively inefficient measures against disease in general to more focused measures against specific diseases. These new efforts made a particularly notable difference in the control of water-borne and food-borne diseases. Sand filtration of the water supply, introduced in the 1880s, was far more effective in preventing typhoid than was earlier sanitary reform; regulation of the milk supply dramatically cut infant mortality.

The other early successful use of bacteriology was in surgery. The advent of antiseptic surgery in the late nineteenth century sharply reduced the mortality from injuries and operations and increased the range of surgical work. But, as the historian Erwin Ackerknecht points out, the rest of therapeutics lagged behind; this was preeminently "an era of public health." One physician commented in 1893 that bacteriology had "rendered great service to the art by adding to the power of preventive medicine. It has not done much for the drug treatment of disease." Pasteur had discovered a vaccine against rabies (which could be given after the bite of a rabid dog because the virus progresses slowly to the brain), but rabies was a relatively uncommon disease.

The first major therapeutic application of bacteriology—diphtheria antitoxin—did not come until the mid-1890s. In 1910 Paul Ehrlich discovered salvarsan ("606") for use against syphilis. Though the first major contribution of chemotherapy, Ehrlich's "magic bullet" was only partially effective, and there was no important successor for the next two and a half decades until the sulfa drugs.

Major advances, to be sure, were made in immunology. The vaccines against typhoid and tetanus date from the turn of the century. These helped raise great hopes for preventive medicine. In 1909 a Report on National Vitality by the economist Irving Fisher, surveying the means to extend life expectancy, gave equal weight to public hygiene, "semi-public hygiene" (medical research, medical practice), and personal hygiene. Sponsored by the Committee of One Hundred on National Vitality by the economist Irving Fisher, surveying the means to extend life expectancy, gave equal weight to public hygiene, "semi-public hygiene" (medical research, medical practice), and personal hygiene. Sponsored by the Committee of One Hundred on National Vitality by the economist Irving Fisher, surveying the means to extend life expectancy, gave equal weight to public hygiene, "semi-public hygiene" (medical research, medical practice), and personal hygiene. 

*On surgery, see Book One, Chapter 4.
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Health, a Progressive group concerned with health and efficiency, this was one of the earliest attempts to define priorities in health services. Of "semi-public" hygiene, Fisher noted, "Antiseptic surgery has in the last century been the greatest triumph of the medical profession and has given it a greater prestige than ever before." But in medical practice, he continued, physicians were giving up drugs and depending more on hygiene. "The number of medicines used by physicians is decreasing and will, if the predictions of experts in the field may be trusted, ultimately be reduced to a small fraction of the present pharmacopeia." 118

Public health and surgery, as the two great successes of scientific medicine, enjoyed greatly increased prestige in the late nineteenth century. Internal medicine lagged somewhat behind in public estimation. A 1912 report of the AMA Judicial Council, attempting to explain why physicians engaged in "fee-splitting" with surgeons, noted that physicians' fees were "practically the same" as twenty-five years earlier, while surgical fees were "enormously greater." It suggested that while surgery was "a concrete service of a visible, definite kind easily appreciated," medicine "concerns itself with the more abstract problems of inoperable disease and has cared for the nagging ailments of daily life and the intangible struggle against unseen infections, and it has shown its greatest triumph in the prevention of disease." 142

Though curative agents were few, new diagnostic techniques were strengthening the authority of internal medicine and radically altering the doctor-patient relationship. At the beginning of the nineteenth century, physicians depended in diagnosis primarily on their patients' account of symptoms and their own superficial observation; manual examination was relatively unimportant. In the mid-1800s a series of new diagnostic instruments—the stethoscope, ophthalmoscope, laryngoscope—began to expand the physicians' sensory powers in clinical examination. The use of the stethoscope, as Stanley J. Reiser has observed, required the physician, at least momentarily, to "isolate himself in a world of sounds, inaudible to the patient," and encouraged him to "move away from involvement with the patient's experiences and sensations, to a more detached relation, less with the patient but more with the sounds from the body." 143 These sounds the patient could neither hear nor interpret. Similarly, the other instruments that gradually assumed a place in the doctor's bag reduced dependence on the patients' statement of symptoms and increased the asymmetry of information. A second set of diagnostic technologies—the microscope and the X-ray, chemical and bacteriological tests, and machines that generated data on patients' physiological condition, such as the spirometer and
electrocardiograph—produced data seemingly independent of the physician’s as well as the patient’s subjective judgment. These developments had uncertain implications for professional autonomy. They further reduced dependence upon the patient, but they increased dependence on capital equipment and formal organizations. Nonetheless, from the patients’ standpoint, these detached technologies added a highly persuasive rhetoric to the authority of medicine. They also made it possible to remove part of the diagnostic process from the presence of the patient into “backstage” areas where several physicians might have simultaneous access to the evidence. As Reiser points out, while the ophthalmoscope and laryngoscope “could be used by only one person at a time” and were “thereby prone to the subjective distortions of the viewer,” the X-ray enabled several doctors “simultaneously to view and discuss what they saw.”114 The collegial exercise of authority strengthened the claim to objective judgment.

The new diagnostic technologies also figured in the expanding role of physicians as gatekeepers to positions and benefits in the society. With the new apparatus of medical measurement, doctors could set standards of human physiology, evaluate deviations, and classify individuals. In the 1840s, the English physician John Hutchinson, who devised the spirometer to measure lung capacity, announced that it would allow doctors to judge physical fitness for military service. Physicians also began in the mid-1860s to study quantitatively the pulse, blood pressure, body temperature, and other physiological indicators, though simple and practical instruments to take the temperature and blood pressure were not devised until the end of the century. The use of more precise measurements in diagnosis only became standard in medical practice in the early 1900s. Standardized eye tests, standard weight-height tables, and IQ tests were all part of a movement to identify statistical norms of human physiology and behavior. With these new techniques, doctors claimed a progressively greater role in social classification.

Specific chemical and bacteriological tests for disease emerged rapidly at the turn of the century. In the 1880s, the organisms responsible in tuberculosis, cholera, typhoid, and diphtheria were isolated, and by the mid-1890s laboratory tests had been introduced to detect these diseases. The spirochete that causes syphilis was identified in 1905; the Wasserman test for syphilis was introduced in 1906. In the nineteenth century, advances in the analysis of the urine and the blood gave physicians additional diagnostic tools for such diseases as diabetes.

These innovations were not serendipitous. They were the result of progress in basic science that made it possible to duplicate successful
applications more rapidly than ever before. The earlier advances in immunization, like smallpox vaccination, had been purely empirical discoveries and were not quickly repeated. Microbiology for the first time permitted physicians to link causes, symptoms, and lesions systematically. The principles that Pasteur demonstrated in the development of anthrax and rabies vaccines now provided a rational basis for developing vaccines against typhoid, cholera, and plague.

Whether many people at the time understood the power of these principles is unlikely; it was probably not until the 1910s and 1920s that the momentum they imparted to scientific medicine was clearly evident. In the late nineteenth century, the picture continued to be confused. There was hardly an advance of medical science whose introduction into medical practice was not initially marred by uncertainty and disillusionment because of errors in application or failures of quality control. This was true of antiseptic surgery, rabies' vaccine, diphtheria antitoxin, and salvarsan. False starts also muddied the picture. Koch's mistaken announcement of a cure for tuberculosis in 1890 was a severe reverse in the clinical application of bacteriology.

But by the late 1890s, medicine was making a difference in health, primarily through its contributions to public hygiene. The role of physicians, however, should not be disparaged. In recent years it has become the fashion to argue that the great drop in mortality in the late nineteenth and early twentieth centuries was due to changes in the standard of living or to general public health efforts. Typically, evidence is cited showing that reductions in mortality from specific diseases occurred before effective prophylactics or therapies were in the hands of physicians. But this is to draw an exaggerated distinction between medicine and public health during this period and to assume that the effectiveness of medicine depended solely on the possession of "magic bullets." By providing more accurate diagnosis, identifying the sources of infection and their modes of transmission, and diffusing knowledge of personal hygiene, medicine entered directly into the improved effectiveness of public health. In two diseases, diphtheria and tetanus, the introduction of antitoxins was followed by a rapid decline in mortality. In a third, typhoid, the introduction of a vaccine accounted significantly for the fall in mortality. Diphtheria and typhoid were two of the major causes of death whose declines figured in the general rise of life expectancy in this period.

In any event, the impact on social behavior of vaccines and serums was not proportionate to their epidemiological effects. Diphtheria and tetanus, like rabies, were dreaded diseases with high case fatality rates, and medical intervention in these instances was dramatically effective.
Diphtheria antitoxin reduced the case fatality rate from 50 to 31 percent. The value of diphtheria antitoxin depended on early and accurate diagnosis; medical expertise in a case might mean the difference between life and death. For understanding the growth of medical authority, it may be irrelevant that doctors could not cure most sore throats. Informed parents would still want a physician to take a look at a child’s sore throat even if the probability of diphtheria was only small. Moreover, it is not difficult to understand how this dependence could become generalized into areas in which physicians claimed expertise on less justifiable grounds.

Medical authority was not necessarily weaker for being objectively incorrect. The case of infant feeding offers a good example. Many of the proprietary infant foods of the late nineteenth century were, in fact, deleterious; some contained no milk at all, and babies who were fed artificially had much higher mortality rates than breast-fed infants. Some physicians advised against any artificial foods; others thought some were acceptable. Most knew little about nutrition and their recommendations were unreliable. A few made a valuable contribution by galvanizing public health authorities into regulating the milk supply. But the claim made by eminent authorities that feeding babies was so complicated it required medical supervision was based on a misreading of the medical evidence. Physicians had found that cow’s milk had more protein than human milk, less sugar, and about the same proportion of fat. They believed that these differences accounted for indigestion and disease among babies who were not breast-fed. Consequently, they thought cow’s milk had to be altered according to a complicated formula. Thomas Morgan Rotch, an influential pediatrician of the period, thought that minute variations in the composition of the milk, as little as 0.1 percent, would make all the difference. Doctors also believed that a baby would have trouble if it were fed more than its tiny stomach could accommodate; not knowing how rapidly milk is digested, they advised a regular and limited schedule of feeding. Rotch insisted, moreover, that what was good for one baby might not be good for another; hence individual medical supervision was crucial. Ironically, many pediatricians at the time also felt that heating milk made it less suitable for babies because it further altered its condition from the natural state. As a result, though they supported efforts to get a clean milk supply, they were ambivalent about pasteurization. Reviewing the previous forty-five years of pediatric opinion about infant feeding, a prominent pediatrician noted in 1935 that what was “most striking” was “that, barring the discovery of the vitamins and the recognition of their importance in nutrition, in spite of all the advances in biochemistry during
this time, all the innumerable investigations which have been carried out . . . babies are now fed in almost the same way that they were at the beginning of this period.\textsuperscript{148} In 1979 another pediatrician reviewing Rotch’s theories concluded with Oliver Wendell Holmes’ remark that, in feeding babies, two substantial mammary glands are more useful than the two hemispheres of a professor’s brain.\textsuperscript{146}

So cultural authority need not be based on competence. Ambiguity may suffice. In the case of public hygiene and the treatment of some infectious diseases, the professional claim to special competence had a rational foundation; in the case of infant feeding, it probably did not. Yet an item-by-item evaluation of medical knowledge is unlikely, it seems to me, to yield an understanding of the growth of medical authority. The change in social behavior was not limited to those decisions in which dependence on professional authority was prudent. On the shoulders of broad historical forces, private judgment retreated along a wide frontier of human choice.

\textbf{The Renewal of Legitimate Complexity}

Between the Jacksonian and the Progressive eras, American politics and culture had undergone a deep change. The American faith in democratic simplicity and common sense yielded to a celebration of science and efficiency. Yet one need not overdraw the contrast between the two periods. Both saw vehement attacks on the power of big corporations, and both witnessed further growth of corporate and bureaucratic organization. In each period, the continuing, unresolved tensions between the nation’s democratic culture and its capitalist economy became particularly acute. Both the Jacksonians and the Progressives esteemed science, but they understood it in different ways: The Jacksonians saw science as knowledge that could be widely and easily diffused, while the Progressives were reconciled to its complexity and inaccessibility. So, for the professions, the contrast between the two eras was striking. In the Jacksonian era, professional monopolies were assailed in the same spirit as business monopolies. In the Progressive period, reformers and muckrakers crusading against business interests held up professional authority as a model of public disinterestedness.

Unlike the Jacksonians, Progressives of varying persuasions supported the drive of the medical profession for control of its domain, joining in moves for strict professional licensing and drug regulation. The crusade against medical quackery brought the muckrakers and the AMA together in common cause. Socialists and the Rockefeller philan-
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Theories were equally committed to the extension of scientific medicine. So were women’s organizations and antifeminists.

The assumptions of radicals, reformers and conservatives reflected the more general decline of confidence in the ability of the laymen to deal with their own physical and personal problems. The home medical advisors of the early twentieth century, unlike their predecessors a half century earlier, concentrated mainly on everyday hygiene and first aid. By the Progressive era, to call for popular autonomy in healing was to endanger one’s own credibility. The public granted the legitimate complexity of medicine and the need for institutionalized professional authority.

Doctors saw the change in their own lifetimes. “Our work in the past ten years has changed tremendously,” commented a Minnesota physician in 1923. “Ten years ago no parent brought a child to the physician for examination to make sure that nothing was wrong. Today, I venture to say that the greatest part of the work a pediatrician has is in preventive medicine.” The same was true of older patients. “A man comes to the doctor and tells him he wants to be examined, and to be told what to do to increase his span of life.”

Few comparisons illustrate more clearly the growth of medical authority than do the differences in physicians’ experiences in the Spanish American and First World Wars. Victor C. Vaughan, long the dean of the University of Michigan Medical School, recalled in 1923:

I served in the war with Spain in 1898, and I went time and again to a division officer and made certain requests or offered certain advice. As a rule, I was snubbed and told by action, if not by words, that I was only a medical officer, and that I had no right to make any suggestions, and it was impudent of me to do so.

The commanding general at Chickamauga [an army camp], when we had an increasing number of cases of typhoid fever, would every day ostentatiously ride up to a well which had been condemned and drink of this water to show his contempt. But in the late war I had a different experience. I never went to a line officer with a recommendation but that he said, “Doctor, it will be done.”

“There was never a war in which the medical profession received the authority and won the credit as it did in the last war,” Vaughan observed, “...and there never was a time when the medical profession had the honor and credit that it has today.”

Christopher Lasch argues that the loss of autonomy and competence by laymen to professionals in the Progressive era was a result of the same forces as were responsible for the loss of autonomy and compe-
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tenence by workers to capitalists and engineers. But the mechanisms involved were so different that the analogy is highly misleading. The power that employers derived from their control of jobs enabled them to carry out changes unwanted by their workers; professionals did not have an equivalent basis of power to deprive the laity of their autonomy. To put it simply, bosses can fire their workers, but doctors cannot fire their patients. Except where doctors were given legal authority or institutional power as gatekeepers, clients became dependent upon physicians only as they sought out professional consultation. That act cannot be explained as pure coercion or false consciousness. Professionals might, as Lasch suggests, "ridicule" the capacity of people to care for themselves, but it seems more reasonable to look for the origins of increased resort to professional advice in the new conditions of life at the end of the nineteenth century than in the self-serving exhortations of professionals.

The pervasive changes in everyday experience brought about by revolutions in technology and social organization altered perceptions of the value of specialized knowledge. The new order of urban life and industrial capitalism generally required people to rely more on the complementary skills of others and less on their own unspecialized talents. Professional medicine drew its authority in part from the changing beliefs people held about their own abilities and understanding. While professionals capitalized on these new conditions, they did not create them. As the main emissaries of science, physicians benefited from its rising influence. The continuing growth of diagnostic skills and therapeutic competence was sufficient to sustain confidence in their authority. And with the political organization they achieved after 1900, doctors were able to convert that rising authority into legal privileges, economic power, high incomes, and enhanced social status.

Physicians' incomes increased substantially in the early twentieth century. Around 1900, according to admittedly imprecise estimates cited earlier, average doctors' incomes ranged from about $750 to $1500. Since prices roughly doubled between 1900 and 1928, comparable incomes in the latter year would have increased to between $1,500 and $3,000. But according to data collected by the AMA from a sample of more than six thousand doctors, physicians in 1928 had an average net income of $6,354 and a median net income of $4,900. In 1929, according to Commerce Department statistics, the average net income of physicians in independent practice was $5,224, while their median net income was $3,758. For the same year, a survey of five thousand doctors conducted by the Committee on the Costs of Medical Care reported
that the average net income of all physicians, salaried and non-salaried, was $5,304 and the median $3,827. Doctors' earnings fell with the Great Depression but remained high relative to other occupations. In a study for the National Bureau of Economic Research, Simon Kuznets and Milton Friedman found for the years 1929 to 1934 that the average annual net income of physicians was $4,081, about four times the average earnings of gainfully employed workers ($991). Median family incomes of the two groups were somewhat closer: Those of physicians were merely two to three times as large as those of the gainfully employed. To compensate for higher costs of education, professional incomes might have needed to be, at most, 70 percent higher than nonprofessional incomes, but the actual difference was much greater. After examining various possible explanatory factors, Kuznets and Friedman concluded that the excess was due to monopolistic barriers to entry into the professions.153

In prestige as well as income, the medical profession gained enormously in the first decades of the twentieth century. Medicine became a highly desirable career choice. By the thirties nearly twice as many people were applying to medical schools as were being accepted. The overall rejection rate—after taking into account unsuccessful applicants from one year who were admitted later on—stood at 45 percent.154 Highly selective admissions had come with the demise of profit-making schools; before 1900 rejections had been virtually unheard of. In an empirical study of occupational prestige published in 1929, based on a survey primarily of high school seniors and school teachers, the physicians' average rank was third, behind bankers and college professors and just ahead of clergymen and lawyers. In a second study, conducted in 1933, medicine uniformly ranked first among people in varying occupations and communities of different size. Later studies have placed doctors ahead of every other occupational category, except for Justice of the U.S. Supreme Court.155

In explaining social hierarchies, two lines of thought have been especially conspicuous. One calls attention to differences in the functional importance to the society as a whole of its various roles and occupations. A second stresses variations in power available to people in different structural positions. Theories of change in social hierarchies—theories, that is, of collective mobility—follow the same general pattern. The functionalist view emphasizes changes in the needs of society or in the capacity of different groups to meet them. The contrasting position looks to changes in the power of classes or occupational groups because of increased resources or diminished resistance. These views suffer from complementary difficulties. The functionalist attributes too much to the society as a whole, while the power theorist attributes too much to par-
ticular organized groups. The functionalist view contemplates only social needs; the power theorist only private interests. Neither sees any way to transcend its own one-sidedness.

The two points of view and their limitations are apparent in interpretations of the rise of the professions. The functionalist ascribes their advance to the growing importance of professional skills and technical knowledge, while the power theorist cites the monopolistic practices of the professions. In the case of medicine, the former sees the growth of valid medical knowledge as the key to the advance of the profession, while the latter finds an explanation in the profession’s monopolization of that knowledge.

In the Introduction, I said that the advance of science, while vitally important, could not explain the comparative and historical variations in the position of the professions. Science may improve the efficacy and productivity of a profession without making it rich or revered; knowledge must be transformed into authority, and authority into market power, before the gains from scientific advance can be privately appropriated by a profession. On the other hand, monopolistic practices alone are an insufficient explanation. Many occupations seek monopolistic power; to cite the impulse is no explanation of why some succeed and others fail. The exponents of the monopolization thesis tend to presume the capacity of a group to articulate its collective interests over its competing interests. What must first be explained is how the group achieves consensus and mobilization.

If the medical profession were merely a monopolistic guild, its position would be much less secure than it is. The basis of its high income and status, as I have argued all along, is its authority, which arises from lay deference and institutionalized forms of dependence. The private interests of physicians alone would be insufficient to sway the society had they been unable to satisfy the felt needs of others. The strength of classes, as Polanyi has written, depends “upon their ability to win support from outside their own membership, which again will depend upon their fulfillment of tasks set by interests wider than their own.”

This was exactly so for physicians, who, alone, had little power. With widespread support, which they received because of complex changes overtaking the entire society, physicians were able to see social interests defined so as to conform with their own. This was the essence of their achievement.