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Professionalism and the Boundaries of Control: Pharmacists, Physicians and Dangerous Substances in Canada, 1840–1908

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In the drive for the consolidation of professional authority, physicians in the nineteenth century sought to exert control over all associated occupations, and weaken the influence of competitors. Many historians have chronicled this process, as doctors and their associations sought to proscribe or eliminate competitors such as homeopaths, eclectics, chiropractors and Thomsonians.¹ Others have explored how physicians sought to subjugate allied occupations such as nursing, radiation technology and physical therapy.² Such studies consider power struggles in two contexts. First, doctors could and wanted to function without the interference of others in the health industry. Second, doctors sought to enforce a power structure that placed them at the top with all the other health care occupations beneath them, dependent upon the activities of the physicians to maintain their livelihoods. In both contexts, external factors and internal exigencies shaped the future identity of all occupational groups.³

This paper examines the limits to the expansion of physicians' control over other medical professions. Using the example of the relationship between doctors and pharmacists in Canada from the middle of the nineteenth century to the beginning of the twentieth, it shows how pharmacists were able to curtail the supposed professional rapacity of physicians by using culturally resonant appeals to their own capability and professional authority.⁴ Their debates related to the proper use and control over so-called dangerous drugs. In the middle third of the century, doctors asserted that they should oversee the education and licensing of pharmacists to ensure that public access to "poisons" was adequately controlled. They were unsuccessful in their bids to gain this governance. At the turn of the century, doctors urged specific regulations over the proprietary medicine trade, ostensibly to protect the public from dangerous drugs in many of these substances. Pharmacists responded with their own vision of how the trade should be regulated. In doing so, they limited the reach and authority of doctors, and expanded, or at least consolidated, their own role in public policy.⁵

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Historians and sociologists of medicine have spent a great deal of energy examining medical professionalization in the past several decades. In his pivotal 1983 essay, S E D Shortt argued that doctors used the language of science to boost their social status and authority before the late-nineteenth-century discoveries of laboratory science gave them tools to begin to cure disease.⁶ This notion that doctors' privileged position was related to rhetoric and culture has been an underlying feature of the history of medical professionalization. Many studies have emphasized the concept of "character", which was culturally specific and related to a set of assumptions about the proper behaviour of a "professional". Harold Cook has demonstrated that the idea of moral character was central to the authority of early-modern physicians,

and numerous other historians have shown how character was a prerequisite for professional authority up to the twentieth century.⁷ In the nineteenth century, being the product of a classical liberal education meant that the individual would have a clear understanding of his moral responsibility to society. Medicine was, after all, an art: a comprehension and implementation of complex philosophical concepts. Only a clear-thinking mind, shaped by the rigours of a classical education, could properly employ this knowledge.⁸

While physicians' authority may have been based upon these subjective moral criteria, this situation was less clear for dispensers of medicine. Druggists, pharmacists, chemists and apothecaries were traditionally not professionals, but rather tradespeople, whose esoteric knowledge lay not in the implementation of philosophical ideas, but the compounding of substances.⁹ This contrast figured prominently in the debates between physicians and apothecaries in Britain before and immediately after the Apothecaries' Act of 1815. The Act resulted in a redefinition of the general practitioner, and an increasingly wide gap between apothecaries and pharmacists, as apothecaries became general practitioners and pharmacists remained compounders and vendors of medicine.¹⁰ In the first half of the nineteenth century, argues S W F Holloway,

London pharmacists combined the language of character with arguments about their rights in a free market to attain regulatory authority over pharmacist colleagues.¹¹ R J Clark has demonstrated that this tension between professional status and free market rights also took place in Canada. He argues that Canadian pharmacists sought to boost their respectability, but remained predominantly merchants.¹²

The market was not the only important factor in this process, however: the power of rhetoric in the acquisition of cultural authority also played a key role. Cultural authority, according to Paul Starr, is the power to define "fact and value".¹³ For pharmacists, cultural authority was the legitimization of their activities as they related to pharmacological theory and practice, such as the power to determine who was a legitimate dispenser, to fill or refuse to fill prescriptions irrespective of doctors' wishes, and the ability to determine which drugs or preparations were potentially dangerous. As we will see, in Canada, pharmacists rooted their arguments initially in the language of moral character, but increasingly using the language of science. In the middle of the nineteenth century, as physicians attempted to gain control of the education and licensing of pharmacists, pharmacists responded by asserting that they were responsible and of requisite moral character to govern themselves. By the end of the century, bacteriological, pharmacological and physiological discoveries primarily in European laboratories, changed the nature of medical knowledge and authority. Increasingly, competent scientific education, rather than one grounded in the liberal arts, defined the capabilities of the practitioner.¹⁴ Pharmacists benefited from this change, since, in contrast to the polymathic nature of medical education, their expertise was specialized. Their rhetoric shifted from the importance of character and moral education, to the scientific nature of their calling. Science, rather than character, became the mark of the authoritative pharmacist at the beginning of the twentieth century. These new definitions helped pharmacists to stave off encroachments by physicians, building pharmaceutical credibility while limiting the scope of physicians' authority.

Events in Canada were part of a general trend in the emergence of comprehensive pharmaceutical legislation throughout the Anglo-American world. In Britain, specific pharmacy legislation began in the middle of the century, when druggists and chemists in Britain succeeded in seeing a Pharmacy Act passed in 1852. This Act created a national Register of Chemists and Druggists, but it did not restrict licentiation nor did it, initially, require an examination for qualification. That legislation came in 1868.¹⁵ In the United States, pharmacy was relatively unregulated until 1870, after which pharmacy regulation proceeded slowly, on a state-by-state basis. It was not until after 1900 that most states or territories required pharmacists to possess a licence. Formal pharmaceutical education became more commonly a prerequisite for operating a pharmacy only after the 1920s.¹⁶ In Canada, where licensing was the purview of the provinces, the movement towards the regulation of pharmaceutical education began in the 1840s, but it was not until after Confederation in 1867 that provincial governments began to incorporate colleges of pharmacy through comprehensive Pharmacy Acts, in Ontario in 1871, Quebec in 1875 and in most of the other provinces by the end of the century.¹⁷ Much of the debate and discussion presented in this article focus on the events in

those two provinces, often located specifically in the cities of Montreal and Toronto. It was here that the major publications were written, and here that the major debates raged.¹⁸ For the sake of clarity, I will use the terms "Ontario" and "Quebec", even though, prior to Confederation, they were properly "Canada West" and "Canada East" respectively. Also, I use the rather modern "health practitioner" as a general term to describe pharmacists or physicians, although some might dispute that usage.

Educating the Apothecaries

During the 1840s, as physicians in Quebec were pressing the legislature for the broader powers associated with professional incorporation, they argued that doctors should control most facets of medical treatment, including the licensing and education of pharmacy.¹⁹ Since 1788, the state had licensed apothecaries, but this law required individuals who sold medicine merely to obtain a licence from the governor of the province. It set no educational requirements.²⁰ In 1842, Dr Archibald Hall, a prominent Montreal physician, proposed a bill to regulate several facets of medicine, including apothecaries. His proposals required each aspiring apothecary to serve a three-year apprenticeship with a physician or apothecary, and to attend classes in chemistry, pharmacy and *materia medica*. Prior to receiving a licence, each apprentice would have to sit an examination in these three subjects before a Medical Board. Anticipating future pharmacy acts, Hall also included several clauses that outlined the conditions under which poisons should be stored and sold.²¹

Hall's suggestions were reflected in the medical and poison legislation he and his confrères presented to the legislature over the next few decades. In both 1845 and 1846, Quebec physicians presented an "Act Respecting the Medical Profession and the Sale of Drugs". This bill detailed the responsibilities of the proposed College of Physicians and Surgeons to examine and license physicians, surgeons, midwives and apothecaries. Dr A Von Iffland proposed that the doctors should include a section governing the education of apothecaries and druggists, "as might ensure to the public as well as to the medical profession, men of good education and thoroughly versed in chemistry and pharmacy".²² Several apothecaries protested to Von Iffland, explaining that they were preparing to petition the legislature for their own act of incorporation. The doctors removed the clause. Yet Von Iffland complained a decade later that the pharmacists had " abandoned the measure then contemplated for their self-improvement, preferring to remain as individuals or associated traders, and subject ... to no other responsibility than that of tradesmen".²³ He concluded that it was time, in 1857, for the College of Physicians and Surgeons to take action, "as may guard against the evils of ignorance".²⁴ The pharmacists had, in fact, introduced their bill unsuccessfully to the legislature in 1849, but did not pursue it in subsequent sessions. Quebec doctors persisted. In 1864, the legislature amended the 1847 Medical Act to place the responsibility for licensing pharmacists under the auspices of the College of Physicians and Surgeons. The following year, the College amended its bye-laws to include specific educational requirements for the pharmacists.²⁵

In these discussions, doctors presented two key concerns about why their governance would improve pharmacists. First, pharmacists toiled in a free market and were liable to be corrupted by the pressure of competition. In 1857 Von Iffland argued that two pharmacists who had recently been examined and licensed by the provincial College of Physicians would have "to be placed in the same position for public consideration and patronage, as others who are not so qualified by the College".²⁶ This, he argued, would be "an act of gross injustice to them".²⁷ In 1860, Hall agreed that the potential dangers posed by the pressures of the marketplace were specifically the reason that the public should demand properly qualified apothecaries. The pharmacists' knowledge of drugs was important, but it was equally important that their " character should be a guarantee of the purity and genuineness of the materials which they are using".²⁸

Hall's reference to character alludes to the physicians' second concern: assuring that pharmacists were of the proper character to do the job. This concern underscored the need for proper education, since adequate education would ensure the correct character. The provisions for education that the College of Physicians

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passed in 1865 made a classical education a prerequisite for studying medicine, surgery, midwifery or pharmacy.²⁹ These requirements reflect a belief that the honour of certain professions depended upon the moral character of their members. For the physicians who demanded a classical education of aspiring pharmacists, the requirement would ensure that moral men were in control of the distribution of drugs.³⁰

The emphasis upon the character of the pharmacists had a practical purpose. Since compounding medicines required detailed technical aptitude, the good character of the druggists should guarantee a person who was always able to act competently. During the 1871 debates on pharmacy laws in Ontario, the *Globe* argued that no act of incorporation could prevent some of the mistakes caused by basic human failings, since "the most intelligent men, with every certificate of competence, may fall into unsteady habits and make some mistakes when more or less intoxicated".³¹ The Halifax *Citizen* echoed this concern in 1874 when the province's doctors presented a bill to control the actions of pharmacists. The *Citizen* opposed the bill, since it would examine knowledge only, without making considerations for the dispenser's character. "He may be constitutionally careless and slovenly, or he may be a man of unsteady or dissipated habits."³²

Pharmacists did not deny the importance of proper character to their profession; but they disagreed with physicians about the best way to secure it. Doctors argued that a proper classical education—overseen by the physicians—would guarantee pharmacists were of good character, while the pharmacists and their supporters contended that a better way to ensure the best character of the pharmacist in the community was to grant pharmacists self-regulating powers. The difference in opinions was a key point of contention during the discussions of the Quebec pharmacy bill in 1869. In a conference with representatives of the province's doctors, members of the Montreal Chemists' Association discussed the different perspectives of the two groups. The doctors claimed that they needed to retain "their present position with increased powers", that the pharmacists were not numerous enough to form a college, and that in any case the legislation to incorporate a college should not precede "a grand educational scheme". The pharmacists explained that " there are means of education at present in existence, but there is absolutely no authority to prevent incompetent persons entering the trade". The Montreal chemists were surprised by the degree of resistance from the physicians to their legislation. Yet the doctors, by their own arguments, supported the aim of the druggists:

One [physician] asserted that [the pharmacists of Quebec City] were not deserving of the confidence of the public, and that he could not trust one of them to make up a prescription. Our instant reply was that ... nearly all [of these pharmacists] held the licence of the College of Physicians to pursue their calling.³³

In October 1869, John Dougall, the editor of the Montreal *Witness*, a notorious spokesperson for liberal and evangelical reform causes, and a strong supporter of the efforts of the pharmacists, insisted that pharmacists should be allowed to regulate themselves, "without the 'aegis' of medical boards", and to educate their pupils free from "the evil influences which surround the medical schools".³⁴

The Effect of the Market

Dougall's suggestion that medical schools were "evil", and of dubious character, hints at another conflict relating to the concern over the improper use of poison: who, really, was at fault? Physicians often characterized pharmacists as incompetent, but pharmacists and their supporters responded in kind, with charges that doctors were just as liable to make mistakes and be tempted by the lure of financial gain as anyone else. In 1874 the Nova Scotia Medical Society presented its bill "for restricting the sale of poisons &c., by druggists in the province of Nova Scotia". The title suggested that the legislation targeted the activities of pharmacists as requiring vigilant supervision. The bill met stiff resistance in the legislature and the popular press. The Halifax *Citizen* noted that some sort of regulation was necessary, but characterized the

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Nova Scotia Medical Society as too "grasping" to be trusted to have the best interests of the public at heart.³⁵ A correspondent to the Halifax Reporter and Times, calling himself "Medicus" argued more passionately that the bill was a conspiracy by the doctors who were "afraid of the superior intelligence and attainments of those engaged in the Drug and Prescription business".³⁶ Medicus characterized physicians as interested only in personal gain. He argued that the public needed protection, not from pharmacists, but from " the grabbing and grasping rapacity of the medical profession generally ... most of them like to, and do, demand and take a good fat fee *whenever* and wherever it can be got".³⁷ In the Montreal Witness of November 1869, Dougall had made similar charges. Since doctors billed patients per visit, and often per prescription, Dougall reasoned, it was in the doctor's interest to extend the length of time for treatment, to keep the nature of the disease a mystery, and to prescribe more drugs than necessary. He likened doctors' business practices to those of trades whose position provided them with the opportunity to mislead the public for pecuniary gain. "A shoemaker who made boots that would not wear out, would soon be gazetted for lack of custom," argued Dougall, "the doctor who should make all his patients well, would be a like sufferer."38 However, whereas "boots are things people understand a little ... diseases are things no one understands,---not even the doctors,---and so it is the doctors' interest that your case becomes as difficult and interesting a one as possible. It is much to their credit when this interest does not bias them, but they would be saints indeed if it never did, unconsciously at least."³⁹

Thrusting the doctors' interests into the capitalist market, Dougall questioned the relationship and interdependence of physicians and pharmacists. He observed that until recently in England doctors were paid only for writing prescriptions: "This was good for apothecaries, and terrible for patients; and it is still suspected that doctors have an interest in the amount of drugs consumed." He suggested that a better means of remunerating doctors would be to set up a system in which families paid doctors an annual salary whether or not the physician had to treat any illness.⁴⁰ The writings of people like John Dougall, "Medicus", and the editor of the Halifax *Citizen* denied that physicians possessed any special rights or qualities that raised them above the baseness of capitalist competition.⁴¹

The tension between the idealization of professionalism and the pressures of the market crystallized in the discussions about the "percentage system". In 1869, a pharmacist wrote to the Montreal Star complaining about the agreement between some city doctors and druggists by which the pharmacist would give a doctor a percentage of the cost of a prescription—sometimes a third of the price—if the doctor sent his patient to that pharmacist. The correspondent, calling himself "Justice", explained that he was often asked by customers to prescribe for them, but according to the law, he sent them to a doctor for advice. "And what return do you think I get for doing so?" he roared, "in nine cases out of ten, my customer is prescribed for by the doctor, and sent to some other store to get his prescription dispensed." Justice asked why he " has any incentive to keep within the law ... when a doctor knowingly influences his patient, to leave the drug store where he may have dealt with satisfaction for years, in order to send him elsewhere, and that, for no other reason but because he has an underhand arrangement." What surprised Justice the most was that the practice was carried out by men "who hold positions as professors of medical colleges".⁴² The Canadian Pharmaceutical Journal called the practice "undignified, ... unfair ... and dishonest", and agreed that "if ... the druggist is so effectually cut off, by medical law, from any profits he might derive from prescribing, we think the charge of 'undignified' professional business may well lie at the door of the physicians". Yet the editor recognized that both doctors and druggists participated in this unfair business. A correspondent to the Journal shared this view, saying that "the public may be hoodwinked for a time by a designing physician and a dishonest apothecary".⁴³ Agreeing with the argument that the practice is unfair to " honest" apothecaries and to the public, another correspondent argued the solution: incorporate provincial pharmaceutical societies, so they could regulate their own.44

The principal reply from the doctors did not deny the existence of the percentage system, but rather explained that it ensured the safety of the public. The Montreal-based *Canada Medical Journal* pronounced the practice to be beneficial for all involved. According to the editor, the pharmacists started the

" custom" in response to market pressures. As the numbers of drugstores increased in Montreal, proprietors tried to induce people to bring in their prescriptions, not to profit from prescriptions, but to increase sales of other items. Owing to competition among druggists, the practice became "almost universal". The editor argued that, even though the market pressures drove the combination, the financial arrangement was beneficial to the public specifically because of the dependent position in which it placed druggists. "The practice of sending his prescriptions to one shop enables the Physician to exercise a degree of control over the compounder, as to the quality of the drugs, &c., which are supplied." He also argued that the physician's influence would induce the pharmacists to "avoid mistakes and employ more skilful assistants". As to the charge that the financial arrangement induced doctors to prescribe more drugs than necessary, the editor explained that only a foolish patient would "take physic" from someone whom the patient suspected of being influenced by a financial motive.⁴⁵ The journal's editors emphasized the dangers of capitalist competition, and the ability of the physician to transcend the temptations of common market forces to the benefit of public health. The doctor's role was to protect the people and, with respect to dangerous drugs, the best way the doctor could act as guardian of the public's health was by regulating the behaviour of the pharmacist.

This perspective incited the wrath of several pharmacists, who vented their spleen in the pages of the Montreal *Witness*, a newspaper sympathetic to the pharmacists' cause. One correspondent claimed that:

... just in proportion as the legitimate profits of the druggist are cut down, so will the quality of the articles and the quality of the salary of his assistants be cut down also ... if the writer [of the *Journal*'s article] is so exceedingly mean as to take his pay out of the ordinary profits of the druggist; and not out of the extraordinary profits put on to cover the percentage system, then he must be a mean man indeed.⁴⁶

Another writer challenged the *Canada Medical Journal*'s claim that doctors were too honourable to be tempted to order more drugs than necessary. While working in England, the writer had observed that doctors often over-prescribed to boost their incomes. "Instead of ordering an honest six or eight ounce mixture, a dozen draughts are very likely ordered, which will cost at least three times the amount, and I need not say that the druggist's share of the spoil is a very small one."⁴⁷

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To doctors' arguments that the percentage system would permit correctives on pharmacists, pharmacists responded with simple lessons in economics, modulated by needs for developing the good character of their profession. Denied their profits, pharmacists would be forced to react by diminishing the quality of drugs or the wages—and hence quality—of clerks, the two factors that the editor of the *Journal* argued the percentage system improved. John Kerry, one of the founders of the Montreal Chemists' Association, recognized the pressures of trade:

... though some part of their time is occupied in the practice of what is a professional calling, the larger portion [of their time] ... must be given to trading on its narrowest sense, and the [Montreal Chemists'] association, by promoting the study of the sciences which bear upon their occupation, was not only calculated to elevate their minds, but to implant and cultivate a brotherly interest in their fellow members.⁴⁸

Here the value of education, even in sciences, was distinctly intended to cultivate good character in the pharmacists: "brotherly interest" would eliminate competition. While their income depended upon day-today commodity trade, Kerry argued that the pharmacists' role as independent and educated guardians of the public health would improve by the creation of some form of pharmaceutical association. Pharmacists and their supporters often accompanied their attacks on doctors with assertions of the honour of the apothecaries themselves, reiterating the fact that pharmacists who are found to have broken the law only do it when the law interferes with the patient's best interests. In 1870, several Toronto pharmacists were charged with contravening extant poison laws when they sold laudanum to a police informer without necessary documentation.⁴⁹ One pharmacist, "J B D", writing to the Toronto *Globe*, attested to the integrity of all pharmacists in the careful dispensing of poisons. "There is no druggist in the Dominion", he asserted, " who would knowingly and willingly contravene the law as it now exists." Yet "J B D" himself proceeded to demonstrate how a caring pharmacist, concerned for the health and comfort of his patrons could in fact contravene the law with impunity:

Even now, while I am writing, occurs an instance of the inefficiency of the law as it now stands. A lady had just entered the shop and request[ed] a remedy for toothaches, with which she is at the time sorely tormented. I immediately (knowing her well) offer her a mixture—properly labelled—of chloroform, camphor, laudanum, &c. which I have reason to believe will at once give her relief ... At the same time, I know I am breaking one of the laws of the country ... and am rendering myself liable to the infliction of a penalty. But what is to be done?⁵⁰

J B D's example, contradicting his own assertions, helped him to bolster his argument that pharmacists were righteous and honourable men, whose capable and efficient service to the public was hindered by burdensome laws. The solution to this problem, he asserted, was clear: incorporate the pharmacists, and they would regulate themselves.

Creating the Laws

As incorporation acts began to be considered in provincial legislatures at the end of the 1860s and beginning of the 1870s, pharmacists' claims to require professional organization to help raise themselves above the temptations of the capitalist marketplace faced scrutiny by opponents of these acts. The effect of professional aspirations on the integrity of the free market was at the heart of these critiques. The editor of the Montreal *Evening Star*, Hugh Graham, questioned the motives of the pharmacists. He noted that, although the apothecaries claimed their incorporation would help to protect the public, "those two human weaknesses, love of gain and misuse of authority, are too equally distributed to make it safe to trust altogether their [pharmacists'] purity".⁵¹ Graham reasoned that if the existing state of education was adequate, then the college was unnecessary, since the medical college was equally capable of licensing pharmacists. However, if the existing state of education was bad, and the college was intended to remedy a bad situation, then why did the pharmacists include a clause exempting practising pharmacists from examination?⁵² Graham decided that, were the legislation to pass, "the safety of the public is no better served" than it was before. Not surprisingly, the Montreal *Witness* came to the defence of the pharmacists, reasoning that pharmacy "is a calling requiring great manipulative skill ... [and] those who exercise it are likely to be the best judges of the competency for licenses".⁵³

Likewise in Ontario, opponents were in favour of the restrictions that the proposed Pharmacy Act placed on the sale of poisons, but saw the Act as creating a trade monopoly, much like the "ancient guilds of the middle ages".⁵⁴ The *Telegraph* objected to this contention, arguing that by a system of licensing and registration "the public will be properly protected".⁵⁵ Opponents were not convinced. When the Pharmacy Act finally passed in early 1871, critics such as Edward Blake, leader of the provincial opposition, had managed to modify the legislation to reduce its impact upon trade.⁵⁶ Revisions made in the Committee of the Whole demonstrate the strength of the anti-monopoly sentiment in the legislature. Provisions restricting the " sale" or "trade" of medicines, except for the most dangerous poisons, were deleted, leaving the Act to regulate principally the action of compounding medicine and the sale of dangerous drugs. Compounding

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required specific esoteric knowledge of pharmaceutical properties, whereas selling was only an issue of trade. The government was not prepared to subvert *laissez-faire* economics any more than it had to.⁵⁷

While full details of the creation of individual provincial pharmacy legislation are beyond the scope of this paper, it is important to note the context in which this legislation succeeded. Beginning with Ontario in 1871, Canadian provinces began to recognize the professional claims of pharmacists. Only a few years earlier (1865–8), the Ontario provincial government passed comprehensive legislation for physicians after years of debates over the question of who should best determine what qualified a doctor for licentiation, and whether such an enactment violated anti-monopoly principles.⁵⁸ To address the latter concerns, Ontario medical legislation was distinctly pluralistic, embracing homeopaths and eclectics as well as allopaths.⁵⁹ Pharmacy legislation was more exclusivistic, though it did allow doctors to continue to dispense for their patients and, as noted above, was aimed at the compounding and dispensation of dangerous drugs.

Contrasting Priorities in Controlling Patent Medicines

The pharmacy acts passed in the 1870s, and modified in the 1880s, gradually became obsolete as the nature of pharmacy changed. Pharmaceutical science expanded exponentially, with large drug companies isolating and mass marketing substances that were more specifically effective and ostensibly safer than many of the drugs in circulation a quarter-century earlier.⁶⁰ These companies contributed to rapidly-expanding pharmaceutical laboratory investigation. Meanwhile, the educational requirements of the new Colleges of Pharmacy meant that pharmacists at the turn of the century were generally better and more uniformly educated than their forebears.

Just as the nature of pharmacy changed, so the nature of cultural authority had also changed. No longer were the issues of character and liberal education, expressed during the discussions over pharmaceutical incorporation, central to the cultural authority of health practitioners. Bacteriological, physiological and pharmacological discoveries—to name but three results of the rapidly expanding laboratory investigation—increased the effectiveness and cultural authority of science. The early-twentieth-century reform of American medical education around scientific principles typifies this cultural shift.⁶¹ Now, to be effective, a health profession's rhetoric needed to be firmly grounded in science—or at least the language of science. This cultural shift benefited pharmacists in two ways: they became influential in social policy formation, and expanded their commercial power.

By the end of the century, the small individually-owned pharmacies, in which druggists or assistants compounded medicines for patients, were competing with large drug houses, serving a variety of needs, from cosmetics to soda fountains; drug compounding being but a small part of a large business. In 1906, the Toronto physician John Hunter reminded his audience that "twenty or thirty years ago the drug store was practically a medical laboratory, and the druggist ... belonged to the learned professions ... [Now he] must be a man of business aptitude and training ... The dispensing of prescriptions is only an incidental part of the commercial enterprise". Hunter was criticizing the dangers of corporate pharmacy. The compounding of prescriptions was now the responsibility of a clerk:

During the one, two or three, hours the clerk is at work on a doctor's prescription he serves many swains and their sweet-hearts with ice cream sodas, washes the tumblers and spoons, selects the best brands of cigars for young and old sports, sells brushes, nursing bottles; in short, everything pertaining to the needs, fads, or fancies of the nursery, bath or lady's boudoir ... Is not the commercial spirit the most dominant and rampant factor in pharmacy and therapeutics?⁶²

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This perception of pharmacy as business contrasts with the pharmacists' perception of their role at the turn

of the century. In 1897 the *Canadian Druggist* reprinted a more sympathetic perception of "the new pharmacist" presented by a physician, Dr Oscar Oldberg. "The new pharmacist … must be an educated, scientific, technical expert—nothing less."

The ... pharmaceutical chemist will be the coming new pharmacist, by whatever name he may be called, for any graduate in pharmacy who has had proper and sufficient training in applied pharmaceutical chemistry and related laboratory work is just what we mean by the designation "pharmaceutical chemist".⁶³

This science-centred vision distanced "the new pharmacists" from the primarily commercial enterprise in Hunter's characterization. Yet both perceptions remained, and in debates over patent medicine laws, the two images of the pharmacist underscored arguments around who should properly control public access to dangerous drugs. Ironically, as we will see, both images served to boost the pharmacists' influence in affecting government policy, while constraining the reach of physicians.

The Patent Medicine Threat

The rapid growth of patent or proprietary medicines became a key issue of concern at the turn of the century. Many of these substances were advertised in local newspapers, sold through mail order and purchased widely as postal services expanded. The patent medicine industry can be roughly divided into two sections. On the one hand, there were "legitimate" preparations made by pharmacists, possibly in consultation with physicians, which made modest claims to pain relief, cough suppression and the like. On the other hand, there were preparations that made claims to any number of cures, from cancer to tuberculosis to secret sexual complaints. These substances elicited many concerns in the health community. They played upon the desperation and naivety of the consumer/patient, their exaggerated claims of cures that modern medicine could not see as possible made doctors look bad, they had undisclosed ingredients that appeared in many cases to be addictive—like opium, which was also restricted by the various poisons acts or pharmacy laws.⁶⁴

Recognizing the dangers from the availability of addictive drugs in patent medicines, physicians and pharmacists disagreed on how best to control these proprietary substances. They argued that both the contents and availability of patent medicines required scrutiny, but disagreed on who was better equipped and capable of adequately controlling these drugs. Both groups saw the rise of addiction-at least in partas an issue of access to addictive drugs. In 1900, the Canadian Pharmaceutical Journal derided E Toussaint's article in La Dosimètre au Canada which attacked the "hundreds of unscrupulous pharmacists who sell morphine to anyone who asks for it". The Journal's editor, J E Morrison, responded that "if there are so many morphinomaniacs it is due to the carelessness, and, we might say, laziness of a certain class of physicians who prescribe morphine for every little pain and ache of which their patients may complain".⁶⁵ Morrison's successor as editor, G E Gibbard, cast the net of blame wider, although he was less willing to admit the growth of addiction. In 1903 he noted that drug addiction was on the rise in other "civilized" countries, especially the United States and Europe, but Canada was less affected by addiction. He attributed this condition to "the strenuous life we lead, the rigor of climate in which we live, and, with all, the quality of material out of which Canadians are built Alcohol, rather than 'dope,' is our tendency, and even this habit is created and fostered more by social tendency than by desire or appetite.³⁶⁶ Two years later, this confidence had diminished to a certain resignation. "Almost every member of the craft [pharmacy] has to deal with the habitués", wrote Gibbard in 1905. He speculated on three principal causes of the growth of addiction: "the carelessness on the part of physicians ... a certain class of patent medicines ... [and] the aid rendered by unscrupulous druggists".⁶⁷

The role of these "unscrupulous druggists" in creating or encouraging drug habits concerned pharmacists,

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and the Nature of Restriction Conclusions who wanted to strengthen their profession's image. In 1899, the editor of the *Canadian Druggist* declared that any druggist who was selling addictive drugs to an individual in order "to sustain the cumulative influence of a drug habit is guilty of a moral crime of a very serious nature".⁶⁸ Another writer concluded that the "immoral" vendor of habit-forming drugs made the liquor dealer appear "angelic".⁶⁹ Yet despite the potential damage an unprincipled druggist could do, Gibbard asserted that the pharmacist's "influence in combatting and remedying the evil is all powerful if he chose to exert it".⁷⁰ This power came from the pharmacists' ability to control the trade in dangerous drugs, ascertained in the drives for extended pharmaceutical legislation, and in the self-regulating powers of the various provincial colleges and pharmaceutical societies. When, in 1903, the Council of the Ontario College of Pharmacy and the Toronto Drug Section of the Retail Manufacturers' Association passed resolutions condemning the sale of narcotics to habitués, Gibbard called upon medical associations to join the pharmacists in denouncing the practice, and move to secure "legislation … to properly restrict the traffic".⁷¹

This call to the physicians is indicative of the unsteady relationship between druggists and doctors in the area of controlling drug addiction. Medical associations generally recognized their members' own potential role in causing (iatrogenic) addiction, but they argued that pharmacists should share the blame. This was also the case in discussions of the proliferation of patent medicines. Some doctors suggested that the growth in the sale of patent medicines was the fault of "our weak-kneed friend, the druggist", who, by repeating prescriptions and selling patent medicines, helped the patient avoid a doctor's fee.⁷² Others sympathized with the plight of the pharmacist, blaming doctors for the plethora of patent medicines. One editor wrote:

... there is hardly a pharmacist in the country who would not gladly rid himself of half his stock of clap trap stuff, if he could; but the physician will not let him, because, forsooth, he does not know enough about his own profession to know what he is making the druggist do. If doctors would cease prescribing patent medicines, the pharmacists would no longer have to stock them.⁷³

Doctors and druggists did agree on one thing: the tactics of the patent medicine vendors could damage their professional image and the public's health. Faced with the dubious claims of patent medicine vendors and the questionable tactics of patent medicine salespeople, doctors complained about the effect unscrupulous advertising tactics had on their profession's image. Druggists, meanwhile, were concerned about the dubious " science" these preparations represented. Both sides demonstrated a disdain for modern business practices as violating ethical principles and the dignity of medical science.

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Many advertisements for patent medicines included testimonials from physicians who affirmed a preparation's effectiveness, claims that deeply concerned many physicians. To combat this practice, the *Montreal Medical Journal* provided an illustration of how patent medicine vendors elicited testimonials from physicians regarding the effectiveness of their product. A "patent medicine man" offers a physician sample bottles of his medicine,

... he tells [the physician] what is in these bottles, being careful to suppress the quantities and the exact composition, at the same time impressing [the doctor] with the important fact that no one else can prepare this medicine Finally, he insinuatingly requests, as a return for the amount of the doctor's time that he has wasted the small favor of a testimonial setting forth the merits of the preparation.... the wearied doctor hesitates and is lost. To get rid of his persecutor he signs.⁷⁴

Medical associations saw this tendency to provide testimonials to patent medicine vendors as anathema and tried to put an end to the practice. The Montreal Clinical Society, for example, passed a resolution that labelled this behaviour "reprehensible". The Society did permit its members to recommend and prescribe secret remedies when they felt the remedies were effective, but not to be quoted or named in ads. The

Montreal Medical Journal's editors questioned this permission, noting that, since the recipe of a patent medicine was secret, there was no guarantee that it would remain the same.⁷⁵ Some evidence bears out this suspicion.⁷⁶

For doctors, dubious marketing tactics were one problem; the sheer number of pharmaceuticals on the market was another. "We have been 'circularized,' we have been overwhelmed with 'literature,' we have been patiently waited upon by 'representatives,' of this firm and of that", complained the editors of the *Montreal Medical Journal* in 1903. The problem was that doctors were being overwhelmed by such attention, and could neither distinguish good preparations from the bad, nor handle the persistent harassment from manufacturers' advertising methods. "Frankly, we cannot do without the products of the manufacturers; we can and shall do without the products—good or bad—of those firms which push their wares with undue zeal. If they wish to adopt a suggestion, it would be, to take to heart the wisdom of hastening slowly."⁷⁷

While doctors disparaged the advertising tactics as interfering with their practices, pharmacist commentators complained that the business of advertising superseded the science of creating better remedies. In 1906, the editor of the *Canadian Pharmaceutical Journal* provided an example of a medicine manufacturer who, finding that his remedy was not selling as well as he had hoped, sought a new advertising manager, rather than a new business manager. The result was an increase in sales, with no change in the product. While this process may have appeared to business people as not unusual, the writer in the *Journal* was disgusted, and alluded to the problems presented when competitive capitalism overwhelmed the medical industry. "The truth and nothing but the truth is too much to expect in a condition where the advertiser's art is so potent a factor in producing successful results, but so grossly have the bounds of truthfulness been overstepped that the over-advertised patent medicine has almost become a public nuisance."⁷⁸

In their complaints, the pharmacists placed themselves squarely on the side of science and technical competence, and in the process presented a clearly class-based élitism designed to separate the educated pharmaceutical manufacturer from the uneducated quack vendor. As the first wave of anti-patent medicine agitation began in the early 1890s, the *Canadian Pharmaceutical Journal* noted that while a doctor needed to "establish his thorough knowledge of drugs, chemicals etc., before the law," the public was not protected from similar proscriptions on patent medicine vendors. "Here we find a blacksmith on the one hand patenting a narcotic that is to insure baby's sleeping well, while on the other hand a shoemaker or a railway navvy is given protection by the Government for the 'sure cure' for consumption he has discovered and is about shoving on the market."79 In 1900 the Journal characterized a patent medicine manufacture as " a superannuated apple tree pedlar or retired river driver possessing as comprehensive a knowledge of medicine and pharmacy as of Chocktaw or Sanscrit".⁸⁰ In 1907, as the federal government prepared to pass a patent drug law, the Journal voiced its concern that no distinction was made "between the skilled, trained and educated pharmacists and the nostrum manufacturer or patent medicine fakir with the 'band waggon' [sic] ... The product of the laboratory of the trained pharmacist is to be subjected to special taxation and restrictions because the nostrums of the patent medicine factories are a danger to the community".⁸¹ Here Gibbard, the editor, distinguishes the scientific "laboratory" of trained pharmacists from the "factory" of the patent medicine vendor, juxtaposing science with commerce, and placing trained pharmacists squarely on the side of science.

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While in their debates with doctors, pharmacists used the language of science to validate their claims of cultural authority, when the time came for legislative action, pharmacists used their position as stewards of pharmaceutical science to boost their commercial power. In provincial legislation, they were pitted against general retailers, grocers and mail order vendors, and used their access to scientific knowledge to argue that

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In 1885, Quebec's Pharmaceutical Association successfully sponsored a new Pharmacy Act through the legislature. The poison schedule of this Act was divided into two parts (schedules A and B). Schedule B included substances that could be sold by non-pharmacists only if the package or bottle remained unopened. Patent medicines headed this list.⁸³ Although not causing a total cessation of widespread sales of patent medicines, the 1885 Act provided a framework for the pharmacists to extend their control. In 1890, a broad-based amendment passed the legislature. This amendment included a clause which gave pharmacists nearly unrestricted power to define poisons; the College of Physicians and Surgeons no longer had any input in the process. It also consolidated the bifurcated poison schedule. The Act no longer included patent medicines explicitly, but by subjecting all poisons to the same form of restrictions and giving pharmacists the power to identify specific poisonous substances, it enabled druggists to control a broader range of medicines.⁸⁴ The power of the profession over the trade in patent medicines, therefore, became nearly absolute.

While pharmacists sought control over sales, doctors in Quebec sought to restrict what they saw as unlicensed medical practice by patent medicine vendors. In 1892, the physicians in Quebec petitioned for amendments to the Quebec Medical Act to give them some control over the distribution of patent medicines. Their amendment would have defined anyone who advertised a patent or proprietary medicine, dispensed these medicines, or "gave consultation" before selling a remedy or patent medicine, as practising medicine. If they were not registered under the Medical Act, such people would have violated the law. Edward Shuttleworth, in the *Canadian Pharmaceutical Journal*, called upon the druggists of Quebec to oppose this amendment, since it would make it illegal for a druggist to recommend even a simple remedy for a common ailment, like a cough medicine or liniment, without breaking the law.⁸⁵ The legislation did not pass.

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The legislative initiatives against unrestricted sale of patent medicines in Ontario reflected similar tensions between pharmacists, doctors and retail merchants, with the added feature that pharmacists wanted more influence over determining what constituted a dangerous medicine. In 1892, the Council of the College of Pharmacy proposed an amendment to the Pharmacy Act of 1871. Initially, the Council looked to include the phrase "any and all patent or proprietary medicines, of whatever nature, that contain any one or more of the poisons contained in the schedule" in part two of the Act's Poison Schedule, thereby placing many dubious or dangerous patent medicines under the pharmacists' purview. A committee of the College of Pharmacy modified this clause, so that only patent medicines that contained poisons listed in the part one of the Schedule would fall under the amendment's provisions. Shuttleworth questioned this alteration, and predicted that the entire proposal would fail. He argued that the amendment had to be more specific than " any and all patent and proprietary medicines", and that no official means of determining the content of patent medicines existed. Any law that restricted patent medicines on the basis of their contents, he said, would be meaningless without a provision to test these medicines.⁸⁶ Shuttleworth was arguing for increased power of pharmacists over the very definition of patent medicines.

Many legislators and newspapers had opposed the amendment to restrict patent medicines, charging that it was once again an attempt by the pharmacists to extend their monopoly over one aspect of trade, and pharmacists attempted to compromise, again asserting their authoritative role in scrutinizing dubious preparations. In March 1893, R W Elliot, one of the founders of the Ontario College of Pharmacy, who had helped to draft the original Ontario Pharmacy Act and was a co-owner of the large drug wholesaling firm Elliot and Company, suggested an amendment to the clause that "would have been acceptable, possibly even to the patent medicine men". Elliot proposed that instead of a blanket provision restricting all patent

medicines under certain conditions, all patent and proprietary medicines be exempt from the Pharmacy Act. Patent medicines could face the scrutiny of the Board of Health if:

... on the petition of the College of Pharmacy or any licensed medical practitioner, the Provincial Board of Health shall cause to be made a full and sufficient analysis of such patent or proprietary medicine by the official analyst or some other competent person, and if on such analysis it appears that such patent or proprietary medicine contains any of the poisons mentioned in any of the schedules to this Act to an extent that renders their use dangerous to health or life.⁸⁷

The Board of Health would then request the Lieutenant Governor of Ontario to add the specific patent medicine to the Schedule.

This compromise, which appeared to satisfy all of the requirements of opponents to the earlier amendment, passed through the legislative committee, but was defeated in the legislature. Not only did the pharmacists' compromise fail to sway the legislature, but the legislators reacted to the pharmacists' initiative by actually opening the trade in patent medicines. While debating another amendment to the Pharmacy Act, which was intended to lift restrictions on the sale of Paris Green, a common fertilizer, the legislature added a temporary clause that eliminated restrictions on patent medicines.⁸⁸ Instead of succeeding in curtailing the sale of dangerous patent and proprietary medicines, the pharmacists unwittingly aided in opening up the market. This temporary clause was extended for a second year in 1894.⁸⁹ In 1896 a modified version of Elliot's clause was inserted into the Act; pharmacists were given the power to control the distribution of patent medicines, but the extent of that power was limited.

The pharmacists in Quebec were more successful than their Ontario counterparts. In 1898, the control which Quebec pharmacists had gained over the distribution of patent medicines earlier in the decade came under the scrutiny of the legislature and the public press. In that year, the Grocers' Association lobbied the legislature for broad-based amendments to the Pharmacy Act which would have effectively permitted any retail vendor to sell patent medicines. The grocers accompanied this legislative initiative with a concerted attack on pharmacists in the public press. In December 1898, several newspapers in the province began to print letters denouncing "the druggists' monopoly".⁹⁰ The pharmacists were concerned that they seemed unable to present their side of the story to the press, which, they argued, had too much to gain by an unrestricted sale of patent medicines, since a large proportion of the advertising space in many newspapers promoted these nostrums. When the grocers had the bill reintroduced in 1899, the results were less than ideal for the opponents of pharmacists' control. This time, the legislature formed a select committee to investigate the viability of the amendments. After several days of hearing testimony from notable doctors, druggists, and grocers, the committee recommended a compromise to limit the sale of only those patent medicines that a chemical analysis determined to be dangerous to the public.⁹¹

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This decision reiterated the place of scientific knowledge and scientific investigation in the policy decisions of the province and limited commercial interests, except those of pharmacists whose authority it expanded within the parameters set by the government. In the amended Act, the Pharmaceutical Association "could declare that any substance ... shall be a poison within the meaning of this act" but it had to submit this recommendation to the Lieutenant Governor for approval. The Lieutenant Governor had two options: he could simply approve the recommendation, or he could "cause to be ascertained, by an expert, at the expense of the Pharmaceutical Association of the Province of Quebec, whether the substances mentioned in the regulation are or are not poisons within the meaning of this act". Patent medicines were not subject to a blanket restriction, but they were now liable to government scrutiny. Suspicions about the contents or safety of any medicine could result in the Board of Health requesting an analysis, a process that could lead to the restriction of a specific product. The 1899 amendments to Quebec's Pharmacy Act strengthened the authority of the pharmacists, while embedding scientific investigation in the process of policy formation.

Ironically, a movement begun by the grocers to curtail the pharmacists' power and extend their own commercial interests, reinforced the cultural authority of pharmacy, and thereby diminished the commercial reach of the grocers.

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While provincial legislation permitted certain restrictions in the availability of medicine, the fact that it was an issue of trade, rather than just health, meant that more effective legislation could be procured only at the federal level. Here, once again, the doctors and druggists agreed in principle, but their different perspectives caused disagreement on the fundamental issues of how to scrutinize the trade. Both groups looked upon the trade as a menace, both to the health of the population and to the potential for their professions to do good (and profitable) work, yet they differed on how the trade should be regulated. The underlying issue was who had the authority adequately to guard the health of the people. The weapon was character assassination, motivated by professional ambitions cloaked in public interest.

The debates concerned how patent medicines should be labelled and who had the ultimate say in defining a dangerous substance. From the 1880s until the passing of the 1908 federal law, the editors of the *Canada Lancet* repeatedly argued that Canada should adopt the practice of printing the entire recipe of the patent medicine on the label.⁹² In 1903, Dr W H Moorehouse, the president of the Canada Medical Association, endorsed the system used in France, "by which all makers of patent medicines are obliged to put the formula, both qualitative and quantitative[,] upon the package".⁹³ In 1906 the editor of the *Canada Lancet* asserted that the recipe on the label was essential for doctors to be able to inform their patients on the effectiveness of certain products. "If a man gets hold of a formulae [*sic*] for a mixture for whooping cough, and then places it upon the market, it is absolutely necessary that its composition should be made known. The medical profession is then in a position to inform its clientele of the safety, or otherwise, of such a mixture." The doctor's duty was to protect the "public weal in all sanitary and healthful measures".⁹⁴ In British Columbia, the Vancouver Medical Association took a different approach, resolving in 1906 that "if persons know, as they should know, what is offered them, they would be able to discriminate between the beneficial and harmful".⁹⁵

Pharmacists rejected the recipe on the label approach, and their arguments blended their commercial concerns with their authority as scientists. To them, the recipe on the label was both a violation of the rights of pharmaceutical vendors and useless because few people had the pharmacological education required to understand the recipes. When the legislature of British Columbia considered a 1906 bill to regulate patent medicines, Gibbard argued in the *Canadian Pharmaceutical Journal* that placing the formula on the label would interfere with the practice of pharmacists and would not address the concerns regarding fraudulent claims. Unless the public had specific knowledge of *materia medica*, Gibbard explained, people would not be able to assess the efficacy of the cure, or its danger. Repeatedly, pharmacists insisted that a better way to determine the safety of the substance was through the creation of an "impartial board of commissioners appointed by [the] government and possessed of the professional and technical knowledge requisite to arrive at a correct conclusion as to [the medicine's] merits or fitness to cure a specified disease".⁹⁶

The different perspectives on the most effective way to protect the public from patent medicines stemmed from different professional priorities. Doctors, insisting that they could benefit from pre-mixed, consistently reliable preparations, preferred to know as much about the medicine as possible. Their patients would trust the doctors' assessments and follow their advice. Legislation, therefore, needed only to ensure that the doctors could oversee the pharmaceutical industry's claims of efficacy. Pharmacists were concerned about proprietary rights to medical preparations, and saw no reason why their legitimate products should be mistrusted. Having the entire formula on the label would interfere with the individual medicine manufacturer's ability to compete in the market. The emphasis upon creating a government bureaucracy to ensure

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consistency in quality had a dual purpose. First, it demonstrated the pharmaceutical societies' confidence that the government would protect the pharmaceutical industry's interests. Second, it would create a bureaucracy that strengthened the role of scientific medicine in policy making. These "experts" would have pharmacological training.

Rhetoric and posturing by the doctors and druggists notwithstanding, in the end the federal government appears to have sought a compromise that would recognize equally the role of physicians and pharmacists in the screening process, while protecting the proprietary rights of legitimate patent medicines. In 1904, the federal Minister of Inland Revenue, Louis-Phillipe Brodeur, asked A E DuBerger, an analytical chemist, to prepare a report on the purity of patent medicines. DuBerger submitted the report in April of the following year.⁹⁷ His report examined specifically how the Adulteration Act could be modified to ensure against both adulteration of medicines and "quack" nostrums. DuBerger's conclusions paralleled those of the pharmacists, reiterating the importance of the pharmaceutical sciences in defining the dangers of certain patent medicines. He explained that sometimes patent medicines "possess real merits and their formulae are the fruit of long work and often the result of several years of experience and observation". In these cases, publishing the formula would "favour indelicacy and abuses on the part of unscrupulous persons", and would be "unfair". DuBerger concluded that the government ought to form a committee composed of "two physicians and two pharmacists and of the chief of the pharmaceutical or drug section of the Department of Inland Revenue ... to take into consideration all formulae of preparations submitted to them". This solution reflected that proffered by the pharmacists, a compromise that involved both physicians and pharmacists in public health policy making.⁹⁸

DuBerger's report was not formally discussed in the House, but a few weeks after its submission, Alfred Stockton, member from Saint John, moved that a committee be formed to consider the best way to deal legislatively with the patent and proprietary medicine trade. This committee resolved that a law "regulating the sale and manufacture in Canada of patent medicine and the advertising thereof" was necessary.⁹⁹ In 1907, William Templeman, the Minister of Inland Revenue, presented a bill to the Commons and sent copies of it to "those interested in the trade".¹⁰⁰ Despite support from both sides of the House, the concern to ensure that the legislation did not violate pharmacists' interests, combined with administrative complexity, set the bill back to 1908.

The final Act (1908) had changed somewhat to accommodate the interests of the druggists. The debates in the Senate turned to issues of who should hold authority over the regulation and distribution of dangerous drugs. Part of the Act provided that no proprietary or patent medicine should contain any drug listed in an attached schedule unless that drug was disclosed on the label of the product. One proposed amendment would have created a proviso stating that manufacturers could have their substance exempted from this restriction if they "transmit to the minister an affidavit specifying such drug and the proportion of it contained in the mixture and dose".¹⁰¹ The provision gave the Minister the authority to exempt the substance from the requirements of the Act. It faced stiff opposition, since it required the Minister to have "supernatural knowledge" of pharmacy.¹⁰² The authority to make distinctions was better left to pharmacists and doctors. Yet supporters of the addition argued that the Minister would act only upon the recommendations of the analysts of the Department of Inland Revenue. One Senator noted that he "would rather trust the analysts of the doctors".¹⁰³

In the debates over the Patent and Proprietary Medicines Act, the needs of the health of the public were balanced against the requirements of the pharmaceutical industry and the role of health practitioners in policy formation. When drafting and refining the bill, the legislators recognized the dangers that the unrestricted sale of certain drugs, notably cocaine and opiates, presented to the public. They also recognized the role of pharmacists in controlling this trade, under the auspices of the government. While the arguments about fairness of trade and the rights of manufacturers to protect the secrecy of their products' ingredients probably had some effect on the legislature's decision, it is important to note that the pharmacists made their arguments based upon the issue of their skill and capability as stewards of pharmaceutical science, not upon their rights as manufacturers. They argued from a common ground with doctors, that science would protect society, but their arguments held more resonance because they were the experts in pharmacy and they had the endorsement of their chemist colleagues such as DuBerger.

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In their efforts to control access to dangerous drugs, pharmacists and physicians often disagreed on how best to regulate the trade, and which profession had ultimate authority over such access. By the beginning of the twentieth century, pharmacists and physicians had entered into an uneasy alliance; pharmacists, once considered by doctors to be properly subordinate to physicians, had attained a level of social and cultural authority that enabled them to argue strongly and effectively for their perspective in regulating drugs. In the 1870s, this authority was founded upon the character and moral authority of the pharmacist. By the turn of the century, that authority was augmented and indeed eclipsed by the scientific achievements and possibilities of pharmaceutical chemistry. In both cases, physicians continued to have a hand in shaping the legislation, but mostly played an auxiliary role in these legislative initiatives. This competition from an allied health field forced doctors to accept different parameters to their profession's purview than they initially endorsed. In the 1870s it was a limit on doctors' influence over the education and licensing of pharmacy, and at the turn of the century it was their limited role in scrutinizing and restricting the trade of patent medicines. The medical profession was not only defined by how it proscribed and even eliminated its direct competition such as homeopaths and eclectics, or subordinated such occupations as nursing, but also by how its own future was shaped by the activities and machinations of allied professions, and their links to credible scientific inquiry.

Footnotes

¹ Paul Starr, *The social transformation of American medicine: the rise of a sovereign profession and the making of a vast industry*, New York, Basic Books, 1982; J T H Connor, 'Minority medicine in Ontario, 1795–1903: a study of medical pluralism and its decline', PhD thesis, University of Waterloo, 1989; Elizabeth MacNab, *A legal history of health professions in Ontario: a study for the Committee on the Healing Arts*, Toronto, Queen's Printer, 1970, pp. 9–12; R D Gidney and W P J Millar, *Professional gentlemen: the professions in nineteenth-century Ontario*, University of Toronto Press, 1994, pp. 85–105; R D Gidney and W P J Millar, 'The origins of organized medicine in Ontario, 1850–1869', in Charles Roland (ed.), *Health, disease and medicine: essays in Canadian history*, Toronto, Clarke Irwin for the Hannah Institute for the History of Medicine, 1984, pp. 65–95; Ronald Hamowy, *Canadian medicine: a study of restricted entry*, Vancouver, Fraser Institute, 1984.

² Sydney A Halpern, 'Dynamics of professional control: internal coalitions and crossprofessional boundaries', *Am. J. Sociol.*, 1992, **97**: 994–1021; R M J Schepers and H E G M Hermans, 'The medical profession and alternative medicine in the Netherlands: its history and recent developments', *Soc. Sci. Med.*, 1999, **48**: 343–51.

³ Katherine Miller has discussed the dynamics of professional identity formation in 'The evolution of professional identity: the case of osteopathic medicine', *Soc. Sci. Med.*, 1998, **47**: 1739–48. Specific case studies of identity formation are many, including Starr, op. cit., note 1 above; C David Naylor, 'Rural protest and medical professionalism in turn-of-the-century Ontario', *J. Can. Stud.*, 1986, **21**: 5–20; Terrie Romano , 'Professional identity and the nineteenth-century Ontario medical profession', *Histoire Sociale/Social History*, 1997, **30**: 77–97; R J Clark, 'Professional aspirations and the limits of occupational autonomy: the case of pharmacy in nineteenth-century Ontario', *B*: 43–63.

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⁴ I am using the terms "pharmacist" and "druggist" interchangeably here. By the end of the nineteenth century the two were effectively the same in Canada. I recognize that the struggle between physicians and apothecaries at the turn of the eighteenth century was over activities far beyond compounding medicine. I use other terms, such as " apothecary" only when the sources are using those terms.

⁵ S W F Holloway has demonstrated that the British Apothecaries Act (1815) went one step further, and through a series of court battles actually subjected general practitioners to the rules of the Society of Apothecaries: Holloway, 'The Apothecaries' Act, 1815: a reinterpretation. Part I: The origins of the Act', *Med. Hist.*, 1966, **10**: 107–29. Irvine Loudon discusses multiple interpretations of the Apothecaries' Act in *Medical care and the general practitioner: 1750–1850*, Oxford University Press, 1986, especially chs 6, 7 and 8; S W F Holloway, 'The Apothecaries' Act, 1815: a reinterpretation. Part II: The consequences of the Act', *Med. Hist.*, 1966, **10**: 221–36; Clark, op. cit., note 3 above.

⁶ S E D Shortt, 'Physicians, science, and status: issues in the professionalization of Anglo-American medicine in the nineteenth century', *Med. Hist.*, 1983, **27**: 51–68.

⁷ Harold J Cook, 'Good advice and little medicine: the professional authority of early modern English physicians', *J. Br. Stud.*, 1994, **33**: 1–31; Gidney and Millar, *Professional gentlemen*, op. cit., note 1 above; Romano, op. cit., note 3 above; Gert H Brieger, 'Classics and character: medicine and gentility', *Bull. Hist. Med.*, 1991, **65**: 88–109; Rebecca J Tannenbaum, 'Earnestness, temperance, industry: the definition and uses of professional character among nineteenth-century American physicians', *J. Hist. Med. Allied Sci.*, 1994, **49**: 251–83.

⁸ Gidney and Millar, *Professional gentlemen*, op. cit., note 1 above, pp. 3–5.

⁹ For an overview of the relationships between pharmacists and physicians, see David Cowen, 'Pharmacists and physicians: an uneasy relationship', *Pharm. Hist.*, 1992, **34**: 3–16.

¹⁰ Holloway, 'The Apothecaries' Act, Pt II', op. cit., note 5 above.

¹¹ S W F Holloway, 'Orthodox fringe: the origins of the Pharmaceutical Society of Great Britain', in W F Bynum and Roy Porter (eds), *Medical fringe and medical orthodoxy*, *1750–1850*, London, Croom Helm, 1987, pp. 129–57.

¹² Clark, op. cit., note 3 above.

¹³ Starr, op. cit., note 1 above, pp. 3–29.

¹⁴ The relationship between science and physicians is far from inarguable; and the debates continue. Paul Starr argued that scientific advancement was but one part of the growth of doctors' social and cultural authority. See Starr, op. cit., note 1 above, especially ch. 3, 'The consolidation of authority', pp. 79–144. Shortt, op. cit., note 6 above, placed the growth of doctors' authority squarely upon command of the language of science, which provided Anglo-American physicians a door into elite society. Actual scientific discoveries came later. This perspective seems validated in John Harley Warner's *Therapeutic perspective* (Cambridge, MA, Harvard University Press, 1986) in which the use of scientific diagnostic techniques fundamentally altered therapeutics prior to the advent of laboratory medicine. Duffin's exploration of the therapeutics of a mid-nineteenth-century Canadian country doctor strengthens the observation that doctors were using new techniques, although they continued to hold fast to older ones, such as bloodletting. See Jacalyn Duffin, *Langstaff: a nineteenth-century medical life*, University of Toronto Press, 1993. Nevertheless, science was limited in its explanatory power, as Jonathan Zimmerman notes with respect to the scientific temperance movement. See Jonathan Zimmerman, ' " When the doctors disagree": scientific temperance and scientific authority, 1891–1906', *J. Hist. Med. Allied Sci.*, 1993, **48**: 171–97. The relationship between clinicians and laboratory scientists was, and continues to be, often strained, as demonstrated in Russell C Maulitz, ' " Physician versus bacteriologist'": the ideology of science in clinical medicine', and Gerald L Geison, '" Divided we stand": physiologists and clinicans in the American context', both in Morris J Vogel and Charles E Rosenberg (eds), *The therapeutic revolution: essays in the social history of American medicine*, Philadelphia, University of Pennsylvania Press, 1979, pp. 91–107, 67–90.

¹⁵ The Act was modified soon after its creation to include a provision regarding education.

¹⁶ David L Cowen, 'Pharmacy and freedom', Am. J. Hosp. Pharm., 1984, 41: 459–67.

¹⁷ Quebec's Pharmacy Act passed in 1875; Nova Scotia's in 1876, Manitoba, 1878; New Brunswick, 1884; British Columbia, 1891; Prince Edward Island, 1905; Newfoundland, 1910.

¹⁸ One caveat about geography: the location of the writers may not reflect the attitudes of practitioners in the countryside. What Holloway noted for the pharmacists in Britain may have held true for Canada: beneath a tension between doctors and pharmacists was a tension between rural and urban health provision. Records do not permit that issue to be explored here. See Holloway, 'Orthodox fringe', op. cit., note 11, above.

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¹⁹ Canada East was half of the Province of Canada, united from the two colonies, Lower Canada (later Quebec) and Upper Canada (later Ontario) in 1840. For more on the early years of Quebec pharmacy, see Johanne Collin and Denis Béliveau, *Histoire de la Pharmacie au Québec*, Montreal, Musée de la pharmacie du Québec, 1994; Johanne Collin, 'Genèse d'une profession: les pharmaciens au Québec au XIX^e siècle', *Can. Bull. med. Hist./Bulletin canadien d'histoire de la médecine*, 1997, **14**: 241–62, pp. 253–57.

²⁰ Collin, 'Genèse d'une profession', op. cit., note 19 above, p. 245. Stanley William Jackson, *The first Pharmacy Act of Ontario*, Toronto, Ontario College of Pharmacy, 1967, p. 2; *Consolidated Statutes of Canada* (1848) Section 16.

²¹ Archibald Hall, Letters on medical education (originally published in the Montreal Gazette) addressed to the *Members of the Provincial Legislature of Canada*, Montreal, Armour & Ramsay; Kingston, Ramsay, Armour, 1842, pp. 24–7.

²² Medical Chronicle, 1857, **4**: 333.

²³ Ibid.

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²⁴ Ibid, p. 334.

²⁵ 'An Act to amend Chapter Seventy-One of the Consolidated Statutes for Canada East, respecting the medical profession and the sale of drugs', Chapter 51, *Statutes of Canada* (27–28 Victoria) pp. 269–70 Section 1. Montreal *Witness*, 30 Dec. 1869.

²⁶ Medical Chronicle, 1857, **4**: 333.

²⁷ Ibid.

²⁸ Br. Am. J., 1860, **1**: 46.

²⁹ Can. med. J., 1865, **1**: 395–6.

³⁰ Gidney and Millar, *Professional gentlemen*, op. cit., note 1 above, pp. 22–5, 415 n85. See also Brieger, op. cit., note 7 above; Tannenbaum, op. cit., note 7 above; Cook, op. cit., note 7 above. Cook notes that this preoccupation with moral character declined by the 1700s, yet others have noted the persistence of the centrality of professional character in defining medical authority.

- ³¹ Globe, 28 Jan. 1871.
- ³² Halifax Citizen, 25 April 1874.
- ³³ Montreal Witness, 30 Dec. 1869.

³⁴ Montreal *Witness*, 27 Oct. 1869. On John Dougall's reforming zeal in theory, see Paul Rutherford, *A Victorian authority: the daily press in late nineteenth-century Canada*, University of Toronto Press, 1982, pp. 48–51; for Dougall's reforming zeal in practice, see Peter deLottinville, 'Joe Beef of Montreal', *Labour/Le Travail*, 1981–1982, **8/9**: 9–40.

- ³⁵ Halifax *Citizen*, 25 April 1874.
- ³⁶ Halifax Reporter and Time, 28 April 1874. This "Medicus" was not Archibald Hall, who died in 1868.
- ³⁷ Halifax *Reporter and Times*, 28 April 1874, emphasis in original.

³⁸ Montreal Gazette, 27 Oct. 1869.

- ³⁹ Montreal Witness, 27 Oct. 1869.
- ⁴⁰ Ibid.
- ⁴¹ See Thomas Haskell, 'Professionalism *versus* capitalism: R H Tawney, Emile Durkheim, and C S Peirce on the distinterestedness of professional communities', in Thomas Haskell (ed.), *The authority of experts: studies in history and theory*, Bloomington, Indiana University Press, 1984, pp. 180–225.
- ⁴² Montreal *Evening Star*, 23 July 1869. Emphasis in original.
- ⁴³ Can. pharm. J., 1869, **3**: 133.
- ⁴⁴ Ibid., p.150.
- ⁴⁵ Can. med. J., 1869, **3**: 235.
- ⁴⁶ Montreal Witness, 6 Dec. 1869.
- ⁴⁷ Montreal *Witness*, 14 Dec. 1869.
- ⁴⁸ Montreal *Gazette*, 7 Sept. 1869.

⁴⁹ For details on this case, see Daniel J Malleck, 'Refining poison/defining power: medical authority and the creation of Canadian Drug Prohibition Laws, 1800–1908', PhD thesis, Queen's University at Kingston, 1998, pp. 106–8.

- ⁵⁰ *Globe*, 5 Dec. 1870.
- ⁵¹ Montreal Evening Star, 22 Oct. 1869.
- ⁵² Montreal Evening Star, 7 Dec. 1869.
- ⁵³ Montreal Witness, 27 Oct. 1869.
- ⁵⁴ Edward Blake, quoted in the Toronto *Globe*, 12 Jan. 1871.

⁵⁵ Telegraph, 9 Dec. 1869.

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⁵⁶ Can. pharm. J., 1871, 4, p. 10.

⁵⁷ See amended Bill 135 (1869–1870 Session), and the list of modifications for Bill 20 (1871 Session). *Legislative Journals of Ontario*, 1 Feb. 1871, p. 103.

⁵⁸ Quebec physicians had a college from 1847, though it was not until 1876 that the laws were significantly strengthened to require all doctors in the province to be licensed. See the history of the Collège des médecins du Québec: <u>http://www.cmq.org/pages/sections/college/histoire.html</u>.

⁵⁹ Gidney and Millar, *Professional gentlemen*, op. cit., note 1 above, pp. 91–8; Romano, op. cit., note 3 above.

⁶⁰ See Miles Weatherall, 'Drug treatment and the rise in pharmacology', in Roy Porter (ed.), *The Cambridge illustrated history of medicine*, Cambridge University Press, 1996, pp. 246–77; Judy Slinn, 'Research and development in the UK pharmaceutical industry from the nineteenth century to the 1960s', in Roy Porter and Mikuláš Teich (eds), *Drugs and narcotics in history*, Cambridge University Press, 1995, pp. 168–86.

⁶¹ See Starr, op. cit., note 1 above, pp. 118–23, on Abraham Flexner 's report and the effects on American medical education.

⁶² John Hunter, 'Nostrums and proprietary medicines', Canada Lancet, 1906, **39**: 1057–62.

⁶³ Oscar Oldberg, 'The new pharmacist and the old drug store', *Can. Druggist*, 1897, **9**: 179 (reprinted from *The Apothecary*).

⁶⁴ On the patent and proprietary medicine industry, see James Harvey Young, *Toadstool millionaires*, Princeton University Press, 1961; T J Jackson Lears, *Fables of abundance: a cultural history of advertising in America*, New York, Basic Books, 1994; in Canada, Glenn Murray, 'The road to regulation: patent medicines in Canada in historical perspective', in Judith C Blackwell and Patricia G Erikson (eds), *Illicit drugs in Canada: a risky business*, Toronto, Nelson Canada, 1988, pp. 72–87; Lori Loeb, 'George Fulford and Victorian patent medicine men: quack mercenaries or Smilesian entrepreneurs?', *Can. Bull. Hist. Med.*, 1999, **16**: 125–45; Michael McCulloch, '" Dr Tumblety, the Indian herb doctor": politics, professionalism and abortion in mid-nineteenth century Montreal', *Can. Bull. Hist. Med.*, 1993, **10**: 49–66.

- 65 'Who is to blame?', Can. pharm. J., 1900, 33: 494.
- ⁶⁶ 'Drug habits', *Can. pharm. J.*, 1903, **37**: 63.
- ⁶⁷ 'The sale of narcotics', *Can. pharm. J.*, 1905, **38**: 450.
- ⁶⁸ 'Unwise sales', *Can. Druggist*, 1899, **11**: 153.

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⁶⁹ Extracted from *Merck's Report* in *Can. pharm. J.*, 1899, **31**: 478.

⁷⁰ 'The sale of narcotics', *Can. pharm. J.*, 1903, **37**: 451.

⁷¹ 'Drug habits', *Can. pharm. J.*, 1903, **37**: 63.

⁷² Editorial, 'Prescribed repetition and its dangers', *Dominion Medical Monthly*, 1903, **20**: 289–90.

⁷³ Reprinted from *Calif. State J. Med.* in *Can. pharm. J.*, 1904, **37**: 496–7.

⁷⁴ Editorial, 'Proprietary medicines', Montreal med. J., 1894, 22: 866.

⁷⁵ Ibid., p. 867.

⁷⁶ In July 1904, the *Can. pharm. J.* commented upon a libel case launched against the *Ladies Home Journal* by the R V Pierce Medical Company. In an examination of the patent medicine trade, the editor of the *Ladies Home Journal* had alluded to the existence of opiates in one of Pierce's products. After the Pierce Company threatened court action, the *Ladies Home Journal* printed a retraction, noting that its original article had drawn upon studies of the products from twenty-five years earlier. A new chemical investigation demonstrated that the formula for the medicine had changed, and it contained no opiates. See *Can. pharm. J.*, 1904, **37**: 568.

⁷⁷ Editorial, 'Proprietary preparations', *Montreal med. J.*, 1903, **22**: 359–62.

⁷⁸ Editorial, 'Patent medicines', *Can. pharm. J.*, 1906, **39**: 358–9.

⁷⁹ 'Proposal to place patent medicines under dominion government control', Can. pharm. J., 1893, 27: 31.

⁸⁰ 'Vigilance required on the part of the pharmacist', Can. pharm. J., 1900, 33: 447.

⁸¹ Editorial, 'No parliament made pharmacists', Can. pharm. J., 1907, 40: 359-60.

⁸² Other provincial legislatures had also attempted to deal with the sale of patent medicines, a fact that the Minister of Inland Revenue noted in 1908 when he alluded to "widespread public opinion that legislation of some kind is necessary". *Debates of the House of Commons*, 15 June 1908, p. 10551. I am using Quebec and Ontario as comparative case studies.

⁸³ 'Quebec Pharmacy Act, 1885', Can. pharm. J. 1885, 19: 7–11.

⁸⁴ Statutes of Quebec, 1890, Cap XLVI, pp. 88–94.

⁸⁵ 'Proposed legislation to restrict the sale of patent medicines in Quebec', Can. pharm. J., 1892, 25: 114.

⁸⁶ 'Patent medicines and the Pharmacy Act', Can. pharm. J., 1892, 25: 114.

⁸⁷ Can. pharm. J., 1893, 26: 161–2. On Elliot, see 'Elliot, Robert Watt', *Dictionary of Canadian Biography*, vol. 13, University of Toronto Press, 1966, pp. 321–2.

⁸⁸ Paris Green was also called Schweinfurt Green, and was the subject of a number of investigations into its poisonous nature. Prior to the 1871 Pharmacy Act, commentators had registered their concerns over the availability of Paris Green, which apparently had on occasion been used for suicides and homicides.

⁸⁹ Province of Ontario, *Bills*, 1894, Bill 137.

⁹⁰ 'The press and the Quebec Pharmacy Act', Can. pharm. J., 1899, **32**: 306–7.

⁹¹ Journals of the Legislature of Quebec, 1897–98, Bill 78, 8 Dec., 14 Dec., 22 Dec., 30 Dec., 7 Jan., 12 Jan., 13 Jan., 14 Jan.; Journals of the Legislature of Quebec, 1899.

⁹² See, for example, Editorial, 'Stimulants and narcotics in proprietary medicines', *Canada Lancet*, 1902, **34**: 55; Editorial, 'Secret proprietary medicines', *Canada Lancet*, 1886, **18**: 343; editorial, 'The growth of quackery', *Canada Lancet*, 1904, **36**: 1147.

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⁹³ W H Moorehouse, 'Presidential address', *Canada Lancet*, 1903, **36**: 10.

⁹⁴ Editorial, 'Proprietary medicines', *Canada Lancet*, 1906, **39** 9: 841–3.

⁹⁵ 'Vancouver Medical Association on patent medicines', *Canada Lancet*, 1906, **41**: 750.

⁹⁶ 'Probable legislation regulating patent medicines', *Can. pharm. J.*, 1906, **39**: 354–5. This argument was repeated often. See 'Proposal to place patent medicines under dominion government control', *Can. pharm. J.*, 1893, **27**: 31;
' Patent medicines', *Can. pharm. J.*, 1906, **39**: 358–9; A E DuBerger, 'Return to an order of the House of Commons, dated April 23, 1906, for a copy of the Report of A E DuBerger, on the Drug and Proprietary Medicine Trade of Canada', *Sessional Papers of the House of Commons*, No. 125, Ottawa, 1906, pp. 22–3.

⁹⁷ Duberger, op. cit., note 96 above; some of the details of the formation of the 1908 legislation are in Murray, op. cit., note 64 above, pp. 72–87.

⁹⁸ DuBerger, op. cit., note 96 above.

⁹⁹ Debates of the House of Commons, 21 Feb. 1907, p. 3464.

¹⁰⁰ Debates of the House of Commons, 11 March 1907, p. 4441.

¹⁰¹ Debates of the Senate, 17 July 1908, p. 1670.

¹⁰² Ibid., p. 1667.

¹⁰³ Ibid.

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