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Inventing Labour Problems and Solutions: The Emergence of Human Resource Management in Canada, 1900-1945

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Departments of Human Resources are ubiquitous in today’s society, whether one works in the public or private sector. Not only is human resource management a key component of any business administration curriculum, it is fundamental to the way that modern businesses and governments operate. Moreover, it is among the fastest growing fields of business consulting, with high-profile corporate “head-hunters” commanding top dollar for their supposed expertise. But when did this new management science first appear? What were its primary implications for business and government operations? And, most important, how and why did it come to be accepted as a useful and legitimate field of knowledge?1

Although the study of labour has long been part of the field of political economy, the emergence of distinct scientific disciplines directed toward the analysis of individual workers and labour markets are relatively recent developments.2 At the turn of the twentieth century there were virtually no university courses, conferences, or institutes organized around such topics, but by the end of the Second World War academic the study of these “labour problems” had become a veritable growth industry. Over the same period, governments and businesses also began to intensify their search for more effective ways of main-

1 My thanks to Duncan McDowall, Robert Goheen, Dominique Marshall, Gail Campbell, and the Journal’s anonymous readers for their comments on an earlier version of this paper, drawn from a chapter of my PhD dissertation (Carleton, 2005). I also gratefully acknowledge the funding provided for this project through the Social Sciences and Humanities Research Council of Canada, the Ontario Graduate Scholarship program, and Carleton University.

taining labour peace and improving labour productivity. Taken together, these changes formed an important component in the development of a more “scientifically managed” economy and society during the first half of the twentieth century.

Particularly over the last two decades, scholars in Canada and elsewhere have become increasingly interested in examining the proliferation these and other forms of “governmentality.” During the late 1970s and early 1980s, this field of research was initially cultivated by philosopher/historian Michel Foucault and his colleagues at the Collège de France. For Foucault, the history of governmentality was the history of the processes by which the art and practice of government, broadly conceived, was constituted, extended, and resisted. In the sixteenth century, as Foucault explained, the Western world witnessed the simultaneous “shattering of the structures of feudalism” leading to “the establishment of the great territorial, administrative, and colonial states” and the rise of “religious dissidence” connected with “the Reformation and Counter-Reformation.” Bound up with these transformations were rapid escalations in the development of new forms of knowledge and new practices relating to the art of governance, or the management of life and things: the self, the family, the political community, and so on. In other words, these investigations and their applications, concerned not only the formal apparatus of the state but also the larger constellation of social institutions (public schools, universities, hospitals, factories, etc.) and the individuals (students, patients, workers, etc.) situated within it.


According to Foucault, these new processes of governance rapidly expanded from the seventeenth century onwards. Over the course of this period, “a power over life evolved in two basic forms ... [or] rather two poles of development linked together by a whole intermediary cluster of relations [:]” one centred upon the individual and the other centred upon society. These structures of power, he explained, were “indispensable” elements in the development of modern capitalist society, which, as an economic and social system, “would not have been possible without the controlled insertion of bodies into the machinery of the production process and the adjustment of the phenomenon of population to economic processes.” Moreover, he added, this “was not all that was required ... [capitalism] also needed the growth of both of these factors, their reinforcement as well as their availability and docility; it had to have methods of power capable of optimizing their forces, aptitudes and life in general without at the same time making them more difficult to govern.” In short, individuals and populations had to be shaped in ways that would make them productive, sustainable, and governable.5

As a contribution to this area of study, this analysis focuses on the emergence of the “problem” of the human factor in production and “science” of human resource management in Canada from 1900 to 1945. It argues that these processes took shape through a complex set of interrelations among academic research, business practices, and public policy. The result was a new conception of workers as distinctive individuals with particular skills, temperaments, and psyches, all of whom were situated in a rapidly-changing economic realm encompassing numerous occupational possibilities, each with its own specific ideal qualifications. In conjunction with contemporary beliefs about the potential for scientific solutions to social problems, this perception of the field of industrial relations contributed to establishing the mindset in which the expansion of interventionist, non-market strategies for governing the labour force would become part of the accepted “conventional wisdom” among numerous business leaders, academics, and policymakers. The individual worker, in other words, came to be understood as a discrete factor in the production process, one that could be scientifically observed, analysed, and regulated. At the same time, though, personnel management was successful because it proved to be more than just a repressive force of “social control:” it was also a productive force of economic advancement and social cohesion.

I. The birth of human resource management

The formation of human resource management – or personnel management, as it was often known as during the early twentieth century – followed a pattern

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quite familiar to other analogous processes of “science building,” including the delimitation of its theoretical body of knowledge, the appearance of its first “professional” practitioners, and the creation of an institutional basis for its propagation and dissemination.\textsuperscript{6}

During the early to mid-nineteenth century, very little systematic thought was given to the “working conditions or welfare” of the individual worker. For the most part, workers were conceived and treated in much the same way as the bags of coal that arrived at the factory gates each day — that is, as purchased commodities and interchangeable inputs of the production process. By the late nineteenth century, this began to change amid rising concerns over labour unrest and labour turnover, both of which adversely affected workplace productivity and profits. Some reform-minded business owners were also becoming anxious about the moral and social implications of an “exploited” labour force. Consequently, these advocates of “industrial betterment” sought to create a “spirit of cooperation” between workers and management. To do so, they started to experiment with material rewards, such as low-rent housing and “fair” wages, to motivate workers with economic incentives, as well as educational initiatives, such as lecture seminars and libraries, to enlighten workers as to the “nature of the economic system” and the benefits of “hard work, thrift, and sobriety.” Workers were thus coming to be more widely perceived and addressed as human beings — with psychological and emotional desires — rather than automaton-like “units of labour.” In early nineteenth century, such a perspective was held only by a handful of “reform-minded” business owners, such as Robert Owen (1771-1858). Towards the end of the century, however, several large American firms, including National Cash Register, US Steel, and the Pullman Palace Car Company, began adopting a variety of so-called “industrial betterment” practices, some of which were even featured at the Paris exhibition of 1900. Not surprisingly, given the rapidly expanding economic and cultural linkages between the two countries, these practices were soon being applied in Canada as well. Early examples here encompassed local firms, such as

\textsuperscript{6} Here, I borrow the term “science-building” from Kaufman, but apply it in a somewhat different sense. For Kaufman, science-building is scholarship directed toward “the advancement of knowledge for its own sake,” as opposed to “problem-solving ([or] the application of knowledge to solve practical problems).” In this context, however, I am referring to the process of literally “building a science,” a process which involves both theoretical and practical elements. See Kaufman, \textit{Origins and Evolution}, xi and passim. Also, see the diverse and growing literature on “discipline construction,” such as Yves Gingras, \textit{Physics and the Rise of Scientific Research in Canada}, trans. by Peter Keating (Montreal and Kingston: McGill-Queen’s University Press, 1991); Paul J. McNulty, \textit{The Origins and Development of Labor Economics: A Chapter in the History of Social Thought} (Cambridge, Mass.: MIT Press, 1980); and Thomas L. Haskell, \textit{The Emergence of Professional Social Science: The American Association of Social Science and the Nineteenth-Century crisis of Authority} (Urbana: University of Illinois Press, 1977).
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McClary Manufacturing of London, Ontario, as well as the Canadian subsidiaries of international firms, such as International Harvester, which maintained a plant in Hamilton, Ontario, but was headquartered at Chicago, Illinois.7

It was at this time that the larger organisation of the production process was coming under closer scrutiny as well. As the size and scope of individual firms expanded, so too did the complexity and problems of business administration. It was also becoming apparent to many that the paternalism of industrial betterment offered few panaceas to the labour problems of modern industry, particularly following the dissolution of a violent strike at Pullman in 1894. According to F.W. Taylor and a small cadre of other self-described “management consultants,” the best way for business firms to reduce labour unrest and generate higher economic growth was to reorganise their operations on a more “scientific” basis. In their view, the determination of the income and benefits of each worker ought be based upon individual productivity rather than an idealised notion of a fair wage or an arbitrary figure arrived at through union-management negotiations. Moreover, in order to maximize the productivity of the firm, they argued that all aspects of the production process should be centralized under the direct control of management. In this way, the technical expertise of management could be best employed to improve the overall returns of both labour and capital. Such reforms stood in stark contrast to the authoritarian but informal and unsystematic management style typical of the previous century, under which the organization and the pace of work were often determined by some combination of custom and labour market conditions. By the end of the First World War, scientific management practices – including managerial control of the production process, careful cost-accounting of each “unit” of production, and “piece-rate” systems of payment – were becoming increasingly common. And, the concomitant insertion of “management” as the primary locus of decision making in the operations of more-and-more medium- to large-sized businesses formed the basis for what business historian A.D. Chandler popularised as the “managerial revolution.”8


The formalization of management ideas and practices during this period was accompanied by the proliferation of educational programs and professional societies organized around certain areas of business. By the end of the first decade of the twentieth century, the University of Toronto, Queen’s University, the University of Manitoba, and several other post-secondary institutions began offering one- or two-year diploma programs in “Commerce” or “Business Administration.” In 1919 and 1921, respectively, both Queen’s and Toronto took the next step by initiating Bachelor’s level programs in these areas, soon followed by the University of Western Ontario, Dalhousie University, and others. Concentrations of study in specialized areas such as “Finance,” “Accounting,” and “Operations Management” also began to appear. So too did organisations, such as the Dominion Institute of Chartered Accountants (1902) and the Life Office Management Association (1924), which sought to establish a common set of standards for and to promote the interests of those within these fields. Such developments were closely linked to wider trends towards the professionalization of other newly-emerging disciplines such as economics, psychology, and social work. In short, during the “Progressive” era, “progress” came to be equated with science, professionalisation, and efficiency through orderly control.9

What set personnel management apart from the other new management sciences was its distinctive blending of political economy, psychology, sociology, production engineering, and cost accounting, as well as its specific focus on the administrative and motivational aspects of the management of “human resources.” With the establishment of his laboratory for “industrial psychology” at Harvard University in 1892, Hugo Munsterberg (1863-1916) became among the earliest pioneers of this field. Together with a small but growing segment of academics, including Alfred Binet, Theophile Simon, and Louis Terman, Munsterberg was concerned with investigating the quantification and classification of an individual’s “mental abilities” and “psychological characteristics.” In 1913, parts of his research were translated and published as

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Psychology and Industrial Efficiency. Within a decade, it was soon joined by a host of other publications involved with promoting and informing the “employee-testing” fad of the 1920s and 1930s.

It was around this time that a series of studies, which came to be known as the “Hawthorne experiments,” delivered a significant boost to the legitimacy of “industrial psychology.” The Hawthorne experiments began with studies on worker productivity conducted by the National Research Council of the US National Academy of Sciences at the Hawthorne Plant of Western Electric in Chicago, Illinois, from 1924 to 1927. Over this period, initial research involving variations in workplace illumination, rest periods, length of the workday, and other factors proved inconclusive. Inexplicably, it appeared as though productivity had increased in every single group involved in the study – even in the control groups, which, aside from participating in the study, had not had any substantial changes to their work environment or wage incentives. Further investigations were thereafter conducted by researchers from Harvard’s Industrial Research Department, among whom were Elton Mayo, T. North Whitehead, and Fritz Roethlisberger. Mayo surmised that all the groups of test room workers had become “a social unit, enjoyed the increased attention of the experimenters, and developed a sense of participation in the project,” and that these psychological factors – rather than those relating to the material conditions of work, fatigue, or economic incentives – were the basis of the increased productivity. From 1928 to 1932, the Harvard group carried out additional studies lending further support to this hypothesis, and thereby reinforcing the perceived importance of psychological factors in production with the weight of a substantial body of empirical evidence. Shortly thereafter, their research was published and widely disseminated in Mayo’s The Human Problems of Industrial Civilization (1933) and Roethlisberger and William Dickson’s Management and the Worker (1939).

In this same period, a small but growing number of Canadians were also participating in the development of the sciences of personnel management. One such contribution was that of R.M. MacIver’s Labor in the Changing World (1919). In this work, MacIver, a professor of Political Economy at the University of Toronto, located at least part of the problems of contemporary industrial relations in the “lack of appreciation of worker psychology.” For MacIver, the application of scientific management in industry needed to be accompanied by...

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10 The work was originally published in 1912 as Psychologie und Wirtschaftleben.
12 Dickson was the chief of the employee relations research department at the Hawethorne plant. On the Hawthorne experiments, see Wren, 275-99, and Kaufman, 76-80.
efforts to provide for labour participation as a “junior partner” in management decisions, such as through consultative “works councils,” in order to maintain the worker’s sense of dignity and control over their own destiny; as well as by protective social legislation, such as unemployment insurance, in order to address the worker’s need for income security.\textsuperscript{13} Further examples can be found in the work of Canadian students. Mary Lillian Reid, for instance, completed what was probably the first Canadian graduate work in personnel management with her master’s thesis on “Works Councils.” At the undergraduate level, a survey of BA theses from Western’s Business Administration program reveals several additional works dating from the late 1920s and early 1930s, including J.F. Bankin, “Personnel Administration” (1929); C.M. McGaw, “Industrial Fatigue and Efficiency,” (1934); T.A. Standing, “Canadian Industrial Pensions Systems” (1934); and S.N. Stevens, “Wage Policies in Canadian Industries” (1934).\textsuperscript{14}

The elaboration of a theoretical body of knowledge greatly expanded the scope for educational training organised around the subject of personnel management, while the practical applications of this knowledge afforded a field of opportunities for professional development and employment. As might be expected, though, the early forays into the teaching of personnel management tended to be fairly limited in scope. The first university-based, non-credit course in “Employment Management,” designed to meet the needs of those already employed in the field, was offered by the Department of Social Service of the University of Toronto starting in 1919. The course ran for just over two weeks, covering “the worker and his fitness for the particular job, the conditions under which work is done, ie. the rules and management of the plant concerned, the system of remuneration, profit sharing, etc. [as well as t]he questions of a suitable method of measuring the workman’s ability, the training of the worker, and industrial morale.” The Department of Political Economy at Queen’s, meanwhile, began offering a regular, degree-credit course on “Business Policy” in the mid-1920s, which looked at “problems in location, expansion, factory management, labour administration, finance, insurance, transportation and selling policy.” Like several other institutions, the Department of Political Economy at Western also offered a regular, degree-credit course on “Labor Problems” at this time. It dealt with “the psychology and history of the labor movement ... immigration, wages, standards of living, women and children in industry, industrial accident and sickness, unemploy-


ment, trade unionism, the employer’s approach to the labor problem, labor legislation, [and] methods of industrial peace.”

By the late 1930s and 1940s, research institutes dedicated to personnel management, and the larger field of “industrial relations,” were beginning to be established. Prior to the Second World War, such institutes had already been founded at American universities such as Pennsylvania (1921), Princeton (1922), Michigan (1934), Stanford (1936), the Massachusetts Institute of Technology (1937), and a handful of others. In Canada, the first of such institution was created at Queen’s, which established an Industrial Relations (IR) Section within its School of Commerce in 1938. In that same year, the Queen’s School of Commerce director, W.A. Mackintosh, sketched out the functions of the new institution in a speech to Queen’s third annual conference on industrial relations. He began on a negative note. First, he said, the IR Section was not to become “a manufacturer of formulas ... [to] place its trademark on the catch-words of the day, deluding itself that it is thereby doing useful work.” Secondly, it was not to be “a promoter of programmes, an emotional advocate of this or that plan of industrial salvation ... [since] to the degree that it becomes an advocate of specific programmes it necessarily loses its freedom.” Thirdly, it was not to be expected to “turn out ready made experts, because such expertise “can only be acquired by experience, by close contact with problems and with the human beings involved in the problems.” What IR Section did aim to do, according to Mackintosh, was to provide “a clearinghouse of information” that would be “both a channel and a storehouse ... available to all who would profit by it.” Its second task was to “carry on investigation and research.” Some of this work would be primarily “elementary” and descriptive in nature, while at other times it would undertake the more difficult task of assembling, classifying and analysing information “not generally available” in order to “show the tendencies which are at work in industry.” Moreover, he continued, “[a]s experience and resources grow,” it might be possible to “go beyond existing practice and cut into essential problems.”

15 “University to Teach Scientific Methods of Using Labor,” Toronto Star, 16 August 1919, 12; Queen’s University Archives (hereinafter QUA), Calendar of Arts (1924-5), 116; and University of Western Ontario, Archives and Research Collections Centre, Calendar of Arts (1926-7), 99. On the availability of “labor problems” courses, see Pupo, 75-115 and 133-164; Kaufman, 48; and Giles and Murray, 40.


17 W.A. Mackintosh, “Industrial Relations and the University,” in Industrial Relations: Papers presented at a Conference on Industrial Relations sponsored by Queen’s University, September 14-17, 1938 (hereinafter Queen’s Conference on Industrial Relations proceedings) (Kingston: Queen’s University, Industrial Relations Section, 1938), 1-4. Not surprisingly, Mackintosh’s depiction of the role of the IR Section was largely mirrored in its early promotional material. In particular, see QUA, Wallace Fonds, Principals Files, “Industrial Relations Section, Queen’s University,” pamphlet (c1938); R.C. Wallace to W.A. Mackintosh [re: “press release”], 14 September 1937; and R.C. Wallace to J.E. Hall [re: “press release”], 8 November 1937.
IR Section, in other words, was to be a centre for independent, scientific research into the problems of modern industrial relations.18

The creation of the Queen’s IR Section signalled the arrival of personnel management as a distinct field of knowledge in Canada. The first two conferences that the IR Section organized in 1936 and 1937, the first on industrial relations ever held in Canada, attracted over 100 participants from business, labour, and academia. Businesses were prepared to offer more than just morale support as well. The early conferences at Queen’s, for example, were partially sponsored by the Montreal Personnel Association and the Toronto Personnel Association – formed in 1935 and 1936, respectively. The first annual budget for the IR Section was supported by donations from sixteen companies totalling $11,850, and by 1942 its projected annual budget was supported by donations from over 100 “subscribers” totalling $12,000.19 Furthermore, the formation of professional associations of personnel-management practitioners was closely linked to the growing “credentialization” of the field, as evidenced by the growing number of institutions offering various certificates and diplomas in “industrial relations.” The Queen’s IR Section, for example, began its week-long extension course in 1938. Similar short-term summer programs were also in place at Toronto and McGill by the early 1940s. These were joined by a two-year certificate program initiated by the Department of Industrial Relations within the Montreal School of Social Service in 1944, a program that the Queen’s IR Section matched with its own one-year diploma program in 1945.20

18 Despite having a staff of only four people – including its director, J.C. Cameron, as well as a research assistant, stenographer, and part-time office assistant – the IR Section was admirably active in fulfilling these functions. By the end of its first full year of operations, it had sent out thousands of inquiries and questionnaires; gathered materials from more than 700 corporate, government, and labour sources for its library; answered over 150 requests for information from businesses, labour organizations, universities, researchers and government departments; published three bulletins; held two conferences; and offered two full-credit courses and one short-term non-credit course on industrial-relations topics. See QUA, Wallace Fonds, Principal’s Files, J.C. Cameron, “Report on the Operations of the Industrial Relations Section, October 12, 1937-June 30, 1938;” J.C. Cameron, “Report on the Work of the Industrial Relations Section, School of Commerce and Administration, for the year ended June 30, 1939;” “Industrial Relations Section, Queen’s University,” pamphlet (c1938); and Kelly, “Industrial Relations at Queen’s,” 477-85.

19 When the University of Toronto established its Institute of Industrial Relations in 1946, it fared better still by attracting the support of over 200 subscribers and over $100,000 to support its first five years of operation. See Kelly, 479, 482 and 487; Queen’s Conference Industrial Relations proceedings (1936-7); University of Toronto Archives (hereinafter, UTA), A71-0019, Vol. 2, F-“Subscribers to the School of IR, 1946-1950;” and F-“Institute of IR – Formation and History,” V.W. Bladen to J.W. Spence, 4 May 1951.

20 QUA, Wallace Fonds, Principal’s Files. “Report on the Work ... June 30, 1939” and University of Montreal School of Social Service, Department of Industrial Relations, pamphlet (c1945); Allan K. Cook, “The Rise of the Personnel Relations Man,” Canadian Business (August 1943), 24 and 100.
By this time, industrial-relations departments or institutes had been established at Queen’s (1937), Laval (1943), and Montreal (1944), later joined by Toronto (1946) and McGill (1949). At Laval, the first Canadian professional journal dedicated to industrial relations, *Relations industrielle/Industrial Relations*, was also added in 1945. A solid institutional basis was thus established, and the prospects for the field looked promising indeed.

**II. The early practice of human resource management**

The establishment of human resource management as a recognized field of knowledge raises several additional questions. What were the first markets for this form of “expertise?” What were its main functions? And what were the intellectual and social implications of its practices?

The school system was one of the first contexts in which the practices of personnel management began to evolve. Over the course of the late nineteenth and early twentieth centuries, the public school system was substantially widened in terms of both the total percentage of students enrolled and the average time each student spent in school. Social and education historians have pointed to a complex set of cultural, political, and economic motivations underlying these trends, among which was the growing recognition of the individual worker as an important part of the resources of advanced-industrial societies. This latter sentiment was clearly expressed in the report of the Royal Commission on Industrial Training and Technical Education (hereinafter, the Commission on Industrial Training). In 1910, it was appointed by future Canadian prime minister William Lyon Mackenzie King, then the Minister of Labour, to “inquire into the needs and present equipment of the Dominion as respects industrial training and education.” As the Minister explained in a memorandum to the Privy Council, such an investigation was warranted because “industrial efficiency” and the “promotion of the home and foreign trade of Canada in competition with other nations” could be “best promoted by the adoption in Canada of the most advanced methods of industrial training and education.”

The four parts of the Commission’s report looked at “the general system of systems of education” in a range of nations, as well as “the systems and methods, institutions, courses and classes” which seemed “most likely to furnish

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information that would be useful to Canada.” In examining “Industrial Training and Technical Education in Relation to the Needs, Duties and Rights of Individuals,” it explained that “in the struggle of modern industry to produce goods cheaply in order to make profits,” so much attention had been paid to the elements of “raw materials, labor-saving machinery and organization” that, at times, “the conditions of and results upon individual workers” were “entirely lost sight of.” However, it pointed out, “[t]he most important asset in any State is the value of the individual citizens themselves. While the conservation of natural resources and the promotion of industries are important and the development of trade has possibilities of benefit, the conservation of life and ability in the individual workers is supreme.” It continued, moreover, with the observation that “[t]he body politic or society gains hardly anything by the labour of thousands of children at the most important period of their growth and development.” In such cases, “[t]he employer is often as great a loser as the boy or girl who works for him,” because “[d]iscontentment on the job, more than the wages from it, will make a boy skip from one place to another. That leads to the destruction of the sense of responsibility and the loss of any habit of persevering application from a sense of duty.”

The hazards of the poorly-trained individual were further reinforced by additional studies conducted by public and private institutions in Canada and elsewhere over the next several decades. The federal Department of Labour’s official publication, the Labour Gazette, for instance, reported in 1930 on a recent survey conducted by the Massey Harris Employment Department, which had decided to track the fate of “the number of boys under 20 years of age, who had left employment [with the company], or had been discharged within the last 7 years.” The survey encompassed 1,499 individuals who had been employed for an average of nine weeks. “[T]hese boys,” the survey concluded, “practically all came from the ‘non-academic type’ ... staying but a short period in any job.” The result was that many “never become trained and ‘develop into the floating type of labourer,’ who, as they get older, become ‘a drag on the labour market,” and compose “‘the bulk of the city’s unemployed.’”

The question, then, was how to ensure the creation of workers who would not become a charge on the public accounts. To this there were several responses. One was greater attention to publically-funded vocational education, the benefits of which the Commission on Industrial Training outlined as:

1. The preservation of health and the vigour of life
2. The formation of good habits
3. The development of the sense of responsibility and duty

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The preparation of the body, mind and spirit for following some useful occupation
(5) The cultivation of the mental powers, the acquisition of knowledge and the development of scientific spirit with direct reference to the occupation.
(6) The promotion of goodwill and desire and ability to co-operate with others.
(7) The maintenance of standards and ideals
(8) As all inclusive and ultimate, the perfecting of the human spirit, the improvement of the quality of life itself and the betterment for the conditions of labour, leisure and living.

The educational system, therefore, was to become an increasingly important part of the social machinery for producing “productive” and “responsible” citizens. Another need recognized by the Commission on Industrial Training was that of guiding individuals into “the occupations to which they are best suited.” This, too, was constituted on a scientific basis over the following decades, through studies such as those conducted in Great Britain by Professor Julian Huxley of the National Institute of Industrial Psychology. As reported in the Labour Gazette in the mid-1930s, Huxley’s study divided children into two groups: one of which “were advised in the ordinary way[s]” attached to the school “on choice of employment” and the other of which were “tested by specially trained workers.” In the latter case, the tests concerned “manual dexterity, mechanical ability, performance tests with concrete problems, and ordinary intelligence tests ... [as well as] special temperament charts ... for each child, to include estimates of such qualities as initiative, perseverance and so on.” The results of the study indicated that those “who had been specially tested and had followed the tester’s advice proved to have been much the most satisfactorily placed, as judged by the length of time the first job was held, by the proportion who continued in the same job throughout the period, by the opinion of employers, and by opinion of the children themselves.”

The idea that individuals might be ideally sorted into different occupations was the impetus behind the vocational-guidance movement. According to a pamphlet of the National Vocational Guidance Association of the United States from the 1920s, the objective of vocational guidance was to “offset the unwise and false guidance of untrustworthy advertisements, suggestion, selfishness, ignorance, and other prejudiced or unscientific sources” with a more scientific approach to selecting a potential career. How this was to be achieved was outlined at the opening of a vocational-guidance bureau in connection with the

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26 Ibid., Vol. 1, Part II, 394.
Montreal branch of the YMCA in 1924. As reported in the *Montreal Gazette*, in providing this service, there was “no intention arbitrarily to direct any young man to a specific livelihood, or to interfere with a formed ambition or the wishes of a boy’s natural guardian.” Instead, the methods employed would be “to present to the youth ... the general principles connected with the choice of life work, to enable him by a process of self-analysis to discover in what direction his preference and his capabilities point, and to bring him in touch with men, already established and successful in the indicated line of work, who will enlighten him as to its advantages and its difficulties.”

The functions of providing this early form of “career counselling” led to the creation of a new career path in itself – namely, that of the “vocational-guidance” counsellor. Ideally, as suggested above, the vocational-guidance counsellor was someone who had a combination of practical experience in the labour force and knowledge of the working conditions and economic prospects within various trades. Many of those who served in this role in the early phases of its development during the 1900s and 1910s were volunteers from the local community. In Manitoba, for example, the Winnipeg Industrial Bureau, described as a “body of public-spirited men representing twenty business organizations,” began sponsoring a series of talks on various trades and occupations presented by businessmen, professors, and trade unionists at schools across the city in the early 1910s. By the early 1920s, however, full-time, paid counsellors began to become more common. In Ontario, for instance, the School Law Amendment Act of 1921 empowered high school board or boards of education to “appoint one or more officers qualified according to the regulations to collect and distribute information regarding available occupations and employments.” Similar steps were taken in British Columbia as well, which began to make provisions for the hiring of a “Vocational Officer” in 1924. Even the Employment Service of Canada, founded in 1919, operated upon much the same principles, with the main difference being that its purpose was to assist in finding employment for demobilised veterans from the First World War and others who had already entered the labour force rather than students who were entering the labour force for the very first time.

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The workplace, of course, was another site very much concerned with the individual worker. In some cases, this took the form of examining and prescribing the physical acts that each worker performed in carrying out their assigned task or the unit value of each worker’s contribution to the production process, as in the “time-and-motion” studies that were popular from about the 1890s to the 1930s. In other cases, businesses attempted to analyse and influence the thoughts and emotions of their workforce, as in the industrial-betterment schemes of the 1880s to the 1910s or the corporate-welfare movement of the 1920s to the 1930s. In the evolution of the management sciences, each of these “management functions” were associated with specific management positions. Accountants were responsible for financial matters, marketing managers oversaw advertising and sales, production engineers managed the production process, and so on. In smaller firms a single manager might perform more than one or sometimes even all of these roles, while in larger concerns managers of particular departments were, in turn, themselves managed by other higher-level company officials with a “chief executive” at the top. The field of managing the human factor in production was no exception, and the late nineteenth and early twentieth centuries witnessed the emergence of two formal positions associated with this particular function: the “welfare secretary” and the “personnel manager.”

There were similarities as well as differences between these two positions, and the history of their development provides a case study of the processes by which disciplinary and occupational boundaries were established, contested, and altered over time. Both were usually expected to have some sort of formal preparation. For welfare secretaries this usually meant social work education and/or practical experience as a social worker, while for personnel managers this could have meant education in social work, commerce, or political economy and/or practical experience as a business manager, social worker, or religious minister. Both shared many of the same functions in the workplace too. This included responsibility for issues relating to the company’s working conditions and the administration of its employee benefits, but it also sometimes included the tasks of investigating and advising upon the personal lives of the company’s employees by means of an “attitude adjustment” or “personal affairs” interview, or, as one article put it, by acting “as a Father Confessor to any of the thousands of employees who many seek advice on some particular problem.”

Unlike welfare secretaries, however, personal managers were more likely to have a management as opposed to an advisory position. Furthermore, whereas welfare secretaries tended to be associated with the industrial-betterment movement, along with its moral and religious underpinnings, personnel managers were more closely associated with the evolving

management sciences.\textsuperscript{34} Given the prescribed gender roles of the time, these factors appear to go a long ways in explaining why the position of welfare secretary was generally occupied by women, while the position of personnel manager was almost exclusively the domain of men. All of the above tendencies, moreover, contribute to explaining why the position of welfare secretary was almost completely displaced by that of personnel manager by the early 1920s.

Although the practice of human-resource management was found across all sectors of the economy, it was often restricted to larger to medium-sized businesses. For the most part, these were companies that were most likely to have the resources, technical expertise, and inclination to experiment with newer techniques for raising labour productivity. This pattern of distribution was reflected in a 1938 survey conducted by the United States National Industrial Conference Board (NICB). It looked at ninety-four companies, spread across natural resource, manufacturing, and service sectors of the economy, which had implemented formal plans for periodically rating their employees. According to its analysis, only one of these companies employed less than 249 people, thirty-four employed 250 - 999 people, and thirty-nine employed 1,000 - 4,999 people. In addition, its findings were suggestive of the relative novelty of personnel management, indicating that about 50 percent of the companies had maintained such plans for ten years or less, while only about 12 percent had maintained such plans for twenty years or more.\textsuperscript{35}

Nevertheless, during the early twentieth century, much as in the case of other fields of scientific management, the “ethos” of personnel management was coming to be perceived as a “modern” and profitable, and therefore desirable and increasingly diffuse, set of values and practices. In 1942, \textit{Canadian Business} writer Kenneth Cox noted that “a number of internationally known firms such as Procter and Gamble, the Waltham Watch Company, Dennison Crepe Paper Company, R.H. Macy’s Department Store, the General Electric Company and the Western Electric Company” all had “rather extensive testing setups for the selection of employees.”\textsuperscript{36}


\textsuperscript{35} The ninety-four companies in the study employed a total of 618,127 people. See the National Industrial Conference Board (NICB), “Plans for Rating Employees,” \textit{Studies in Personnel Policy}, No. 8 (June 1938), 3-4.

\textsuperscript{36} Kenneth Cox, “Selecting Employees the Modern Way,” \textit{Canadian Business} (Sept 1942), 96-100.
The London Life Insurance Company was another such firm. While insurance industry has long been a tough and competitive business, it was particularly so during the Great Depression. The level of risk was up and the ability to pay for premiums was down. Because of the resulting squeeze in corporate profits, continued success in the industry called for agents who were proficient in leveraging sales and taking existing market share from their competitors. This, in part, explains why by the middle of the 1930s the London Life had launched an intensive search for what was known as the “Double A” sales candidate. According to research conducted by the Sales Research Bureau (SRB) of Hartford, Connecticut, the ideal insurance salesman was said to fit a very particular profile. Based on “thousands” of questionnaires “filled in by men known to have made a success of life insurance selling,” the SRB had constructed two tests to gauge a sales candidate’s potential for success: the Prospective Agent’s Rating Chart, to measure “background preparation,” and the Aptitude Index, to measure “intangible psychological factors.” The Double A sales candidate was the prospective employee who could score an “A” rating in both categories.

The SRB’s research indicated that, typically, the Double A sales candidate ranged in age “from 35 to 39, [and was] happily married, with a wife favourable toward the business and with a complete High School or University Education. In his previous occupation, he may have been an outside salesman, a bank manager, a business proprietor or executive.” In his personal habits, he was “somewhat impatient of detail, dislike[d] ‘tinkering,’ [and] like[d] to spread his energies into a great many activities.” Moreover, he had “instinctive sense for people ... There [was] an element of shrewdness the selection of his contacts,” in that he joined “political organizations with good prospects and clubs” where he could “associate with the leading people of the community.” In his job, “he hope[d] to secure a certain amount of power and the chance to control important matters.” And, in domestic life, he enjoyed “an attractive, well-arranged home” because it provided him with “a feeling of stability, permanence and security.”

In addition to rating applicants for sales positions against these and other criteria contained in the SRB’s rating charts, London Life further scrutinised each candidate according to “(1) a personal history record, (2) a credit inspection report, (3) a health report, (4) references and (5) [a] manager’s pen picture,” all of which were then forwarded to head office for further analysis. If this attention to detail put the company considerably ahead of many of its contemporaries in knowing specifically what “type” of worker it wanted in its

38 Ibid., 22.
labour force, its general attention to the individual worker was still part of a larger trend. By this time, many other important Canadian companies and government organisations also had adopted at least some measures for selecting employees and determining their workplace duties, performance, and proper level of remuneration in, as Cox put it, “the modern way.” As early as 1918, for instance, the Canadian government had contracted the American management-consulting firm of Arthur Young and Company in order to assist in the process reclassifying the positions within the federal civil service.39

Unfortunately, as many firms and governments were to discover, achieving modernity was both an expensive and time-consuming proposition. In some instances, therefore, there tended to be more commitment to the concept rather than the actual practice of personnel management. Of the fifty Canadian war plants surveyed by the management-consulting firm Stevenson and Kellog in 1943, for example, only eight were rated as having “first-class” personnel management programs in place. Of the remainder, twenty were rated as being in the “developing stage” and twenty-two were rated as “dealing still with primary needs.” The “first-class” plants were said to be those in which “all facilities for excellent working conditions and the comfort of employees are in good shape; workers are carefully selected, put in jobs best suited to them and up-graded as ability warrants; foremen are well trained; and production per employee is rising.” In such a context, Canadian Business approvingly noted, “There isn’t much chance for discontents to start trouble.”40

But what, more precisely, was the business rationale for employee testing and other personnel management practices? In a panel discussion at the Conference of Personnel Executives put on by the NICB in April 1939, Dr. Millicent Pond, Employment Supervisor for Scovill Manufacturing Company, put it as such: “As I see it, the value of tests for the employer is, first, that it is possible in many occupations to improve the percentage of satisfactory and highly successful employees by their use. Second, it is possible in the matter of promotions to be more sure that the person you choose out of the many available for promotion of a given sort will be a successful choice.”41 Much like the educational-guidance movement, therefore, part of the functions of personnel departments included the improvement of productivity and the reduction of labour problems through attempting to sort the “right workers” into the “right positions.”

INVENTING LABOUR PROBLEMS AND SOLUTIONS

Similar lines of reasoning were outlined in papers presented by personnel-management practitioners to the first annual conference on industrial relations at Queen’s university in 1936. As A.J. Hills, the Chief of Personnel for the Canadian National Railways, explained it in his presentation, the inventory and evaluation of a company’s human capital ought to be taken equally as serious as the inventory and evaluation of its physical capital. From this perspective, a rationally-planned personnel program for selecting, training, and promoting workers, which took into account a company’s present and future needs, was simply good business. Furthermore, he added, if it was “diplomatically introduced,” such a programme “should have a good effect on the morale of the staff as it should certainly create good feeling on the part of the employees to know that the company thinks well enough of them to train them to meet the changing condition [of industry].” W.H.C. Seeley, Director of Personnel for the Toronto Transportation Commission, further emphasized that the need for improvement in the employee-selection process of most industries could not “be stressed too greatly.” In his view, “the chief difficulty” facing most personnel managers “was not in distinguishing between those who are capable of learning and those who are not,” but rather “in distinguishing between those who, after learning their duties, will carry them out with intelligence and pride and those who must have close, constant supervision.” The problem, then, was to find more of the first type of worker, while weeding out or winning over the second type.42

The scientific selection, assessment, and shaping of the individual worker was carried out through a variety of personnel-management practices. Scientific employee-selection processes were one such example. While few companies had a program quite on the scale of that of London Life and its elaborate methods for finding the Double A sales candidate, a growing number of them were adopting one or more of its elements. L.H. Miles, an employment manager with Canadian Industries Limited, for example, told the 1936 conference on industrial relations at Queen’s that the commonest aids in evaluating a potential employee included: “(a) the application for employment; (b) the interview report; (c) the applicant’s self-analysis; (d) the previous employer’s recommendation; and tests of aptitude and specific abilities.” According to Miles, “where deemed appropriate” and “assuming a knowledge of the requisite qualifications for the position to be filled,” these were the techniques that should be employed by personnel managers for determining the extent to which each prospective employee fit the imagined profile of what sort of individual would best fill each job opening.43

42 As part of accomplishing the latter, Seeley briefly referred to employee recreation programs, accident prevention and compensation, apprenticeship, and an employee magazine, among other “phases of Industrial Relations.” See A.J. Hills, “Planning a Personnel Program,” and Seeley, “Industrial Relations in Practice,” in Industrial Relations (1936), 9-12 and 42-9.
43 Miles, “Interviewing the Worker,” 14.
Another practice consisted of reviewing the workplace performance of existing employees, in order to determine either their eligibility for promotions or their need for corrective action. Of the ninety-four companies surveyed by the NICB, 73.2 percent reported to have some sort of employee-rating system in place, and of these firms approximately 78 percent reported conducting such
ratings once or twice per year.\textsuperscript{44} Many of these rating systems resembled the “Man-Rating Chart” employed by the Hudson’s Bay Company (HBC). Like many such plans, it based its assessment of the individual upon a combination of their job performance and their “general character,” in this case by rating each according to their “Personality,” “Ability,” and “Reliability.” [Figure 1] Three observations can be made about this particular example. The first is that the HBC chart, which was intended to select individuals for promotion, leaves little doubt as to the gender of those being considered. In this context, the “Man-Rating” title was more than just a term of convenience. According to an article appearing the company’s employee magazine, \textit{The Beaver}, only a month earlier, “\textit{whether she admit it or even believe it – the ambition of every business girl is – what the destiny of all normal women is – to find a husband that will tally to the measure of her ideal ... The sensible working girl, therefore, is putting in office hours ... to improve herself ... to marry a man higher up in life and making more money than if she [had] never entered the business world.}” \textsuperscript{45} Second, as for the men who were being rated for promotion, the HBC chart illustrates how it was not just one’s individual efficiency that was coming under scrutiny, but also one’s “confidence,” one’s “ambitions,” and one’s “ability to co-operate and [to] get co-operation.” \textsuperscript{44} Third, the HBC chart, and other such examples, provided one of the templates by which the company could convey what it expected of its employees, and thereby encourage the same by making employees aware of the fact that these were being monitored, as well as one’s standing against this standard and those of one’s fellow employees.

Job analysis was yet another practice. Its purpose was to classify each employment position to determine: the nature of its requirements, the profile of its ideal candidate, and its proper level of remuneration. Of these three aspects, the first two were the most straightforward but perhaps the most important, as they marked the “starting points” from which management could make determinations on hiring, training, wages and other aspects of personnel policy. This began with delineating each position according to its functions and the education, abilities, skills, and temperament which were determined to be ideally suited for performing in this role. In the final aspect, however, the process became increasingly complex, as here firms had to take into account not only their internal needs but also the external labour market conditions which also structured the availability and costs of certain forms of labour.

At the 1938 conference on industrial relations at Queen’s, W.F. Cook of the Kimberly-Clark Corporation recounted his company’s particularly ambitious example of how it embarked on a program of “scientific wage determination.” Cook explained that in 1933 Kimberly-Clark began classifying, comparing, and

\textsuperscript{44} NICB, “The Use of Tests in Employment and Promotion.” 14.
\textsuperscript{45} J. Brown, “Stores’ Staff Promotions are Governed by Efficiency,” \textit{The Beaver} (December 1920), 24-7; and “To HBC Girls,” \textit{The Beaver} (November 1920), 11.
determining the wage rates for its 3,400 person workforce spread over seven plants in five different localities. This started with the usual questions of job analysis, but also took into account other factors such as the comparability of the work performed by each occupation and the going “market rate” for each type of labour. An equal number of representatives from management and labour were involved, with the proviso that any wage increases for one occupation had to be counterbalanced by an equivalent decrease in another. In practice, however, those in occupations determined to be receiving an “above-level” wage did not have their pay cut. Instead, it was agreed that such anomalies would be “‘washed out’ through normal turnover and through differential treatment whenever general wage increases or decreases are made.” In the end, based upon these determinations, wage schedules were established for 700 different hourly-paid occupations! Fifty-eight percent of employees received raises ranging from $0.01 to $0.19 per hour, resulting in an additional outlay of “$120,000 per year or two percent of the payroll.” In return, Cook concluded that the company had gone a long way towards resolving many of its “wage adjustment problems” by placing the question of wages on what it presented as a scientific basis as opposed to “[t]radition, inheritance, hunch favouritism, group pressure, special cases,” and so on.46

Scientific employee selection, employee rating, and job analysis, therefore, each contributed to constructing “the ideal worker” and the relative value of his or her work. Taken together, these interrelationships are perhaps best illustrated through the job-rating chart employed in Canada during the late 1930s by the J.D. Woods and Company management-consulting firm. This analytical system was loosely similar to that “originated and used by the Bedaux Company, especially in England, for application to direct labour in factories,” as well as what could be found in wage-determination texts such as M.R. Lott’s Wage Scales and Job Evaluation (1926). It listed seventeen factors of differing weights, which were “divided into two main classes; the first and most important, the requirements that the work demands of the worker; the second, the conditions which the job imposes on the worker.” Trade education, for instance, was rated from zero to twenty-eight, while the amount of workplace experience required was rated from zero to twelve. Other ratings included job demands such as mechanical ability, dexterity, alertness to detail, and working conditions such as monotony, abnormal position, and disagreeableness. The idea was to have “[s]everal persons with different viewpoints participate in the ratings and pool the results.” The final outcome was then expressed as an index number which was meant, “not to replace judgement,” but rather to provide “a guide to orderly thinking” and to replace “crude opinion with a thoughtful appraisal.”47

46 W.F. Cook, “Wage Determination,” Industrial Relations (1938), 78-86.
47 R. Presgrave, “Paying the Worker,” Industrial Relations (1936), 27.
During the Second World War, the drive to legitimize labour-management co-operation as the best route to productivity, “fair” wages, and economic growth further intensified. Posters and pay-packet inserts urged workers to “produce for prosperity” and “security.” Films produced by the National Film Board of Canada, and shown in the workplace and community centres in collaboration with business and labour organisations, urged workers to support both the war effort and the concept of “industrial democracy.” And, on a more practical level, hundreds of “labour-management” production committees (LMPC) were set up in medium and large-sized businesses as well, ostensibly to provide workers with input into workplace conditions, the labour process, and, sometimes, even the hours of work and wages, though the latter often continued to be primarily handled through the collective bargaining process in cases where a union was already in place. The latter harkened back to the “Joint Industrial Councils” established in the aftermath of the First World War in a similar attempt to suppress workplace conflict through appeals to labour-management co-operation. Both sought to “co-opt” workers by tapping into their supposed psychological desire for “participation” in the labour process, though neither necessarily yielded much in terms of substantive decision-making power since final authority usually continued to rest with a company’s chief executive officer and “outside” state-appointed arbitrators. LMPCs were far more widespread than “industrial councils” had ever been, however, encompassing nearly 300,000 workers in 1945 by one estimate. Nonetheless, as labour historian Peter MacInnis concludes, these and other similar mechanisms tended “to reinforce an active, but rigidly circumscribed, sphere for labour’s action.”

By the end of the Second World War, therefore, human resource management had emerged as a relatively coherent set of ideologies and practices circulating throughout the school system, the state, and workplace within Canada and other advanced-industrial societies. If there was anything “distinctive” about the Canadian experience, it might be found in its relatively later arrival and slower dispersion compared to that of more “developed” nations such as the United States and Great Britain and, more importantly, in the particular way in which it intersected with other discourses – political, legal, and social – within the Canadian context. Clearly, the latter suggests several areas in which there is scope for further research into the entire “macro-foundations” of the modern state. In the immediate contexts of the school system and the workplace in

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Canada, it is equally clear that the advent of human resource management resulted in several powerful political, economic, and social effects – effects which proved to be simultaneously coercive, productive, and contestable.49

The coercive aspects of human resource management were far from subtle. By bringing scientific analysis down to the level of the individual worker as a distinctive “being,” it constituted the labour force not as a uniform pool of undifferentiated units of “labour” but as a variegated range of individuals with distinctive abilities and psychological needs. When combined with the creation of a growing occupational diversity and an increasingly-intensive gradation of the relative value of different employment positions through “job analysis,” these processes contributed to producing the socio-economic construct of “the corporate ladder.” In conjunction with the diffusion of the ideal of a merit-based system for selecting and promoting workers, which was also promoted in personnel-management practice, this represented the promise that those dissatisfied with their current position could reasonably aspire to, and if they worked diligently perhaps achieve, a position more to their liking. “Staff promotions,” as The Beaver proudly announced to the employees of the HBC in 1920, were “governed by efficiency” and the “periodic analysis of ‘Success Qualities.’”50

This, therefore, invited workers to conform with the preset model of these very “Success Qualities,” which, obviously, did not include questioning authority, promoting worker solidarity, or faithfulness to priorities outside of the workplace.

Yet the practice of human resource management cannot be entirely understood in negative terms; to be sure, its utility, its inherent “genius,” resided in its ability to produce consent. If employee selection, promotion, and job analysis are all believed to be based upon merit and scientific analysis, then those who do achieve success have a certain stake in accepting and defending the existing systems. Historical and contemporary experience also would seem to suggest that, within certain limits, practices such as goal setting, payment incentives, and psychological rewards, do promote productivity. As London Life discovered, investment in the “scientific selection” – or, perhaps more accurately, the “scientific constitution” – of individual workers appeared to provide some substantive and measurable returns: using the SRB’s system during the five-year period from 1933 to 1938, it was able to decrease the overall number of company agents by 43 percent, while also increasing the average


production of each individual sales agent by 35 percent.\textsuperscript{51} At the larger social level, moreover, human-resource management’s emphasis on the individual worker, rather than the collectivity of workers, promoted a view of the world as a more-or-less “fair” competition among individuals rather than, say, as an ongoing conflict between the social classes of capital and labour.\textsuperscript{52}

None of this is to suggest that the theories and practices of human resource management were accepted without question. Indeed, in its application as a system of power/knowledge, it brought forth the possibilities of “forces of resistance” to management prerogatives. Take, for instance, MacIver’s argument that worker psychology demanded that workers have a “voice,” if only a “junior” one, in management decisions. This represented a considerably progressive view in comparison with many management attitudes at the time, particularly those which appeared to be widely-held only a generation earlier.\textsuperscript{53} Two decades later, these same sort of psychological arguments also would be advanced in support of collective bargaining rights by other “experts,” such as Harold Logan, a labour economist at the University of Western Ontario, and J. Finkelman, a professor of administrative and industrial law at the University of Toronto.\textsuperscript{54} Alternatively, one might cite the example of the job analysis process at Kimberly-Clark, in which the majority of workers did realise some form of wage increase. Even the very concept of “equal pay for work of equal value” helped to establish one more avenue for contesting the existing systems of wages or, at the very least, for mobilising dissent on the basis of perceived divides between rhetoric and reality. Over the longer term, though, perhaps the key question resides in the extent to which the management sciences, such as human resource management, continue to be accepted as more “legitimate” forms of knowledge vis-à-vis the other economic, political, and social perspectives arrayed against them. And while this question still remains to be answered in time, one can hope that establishing the historicity of all of the above can be the first steps to a wider field of possibilities.

\textsuperscript{52} See Kaufman, 21-43; and Barley and Kunda, 371-6, among others.
\textsuperscript{53} See, for example, Gregory S. Kealey (ed.), \textit{Canada Investigates Industrialism: The Royal Commission on the Relations of Labour and Capital, 1889 (Abridged)} (Toronto: University of Toronto Press, 1889).