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HIGHER EDUCATION IN CANADA

OUTWARDLY, THE CANADIAN UNIVERSITIES bear a striking resemblance to institutions of comparable size in the United States—the same buildings, the same academic ranks, the same fields of study, the same buoyant and often uninhibited students. Nor is the resemblance merely superficial. Because the American and Canadian universities have arisen in response to comparable socio-economic needs, because the drama has been enacted on a single geographic stage, because the British tradition of higher education has been a strong influence in both countries, the basic structure of McGill and Harvard, of Toronto and Michigan, of Acadia and Bowdoin, is identical. But there is more to universities than basic structure. The intangibles—spirit, tradition, educational philosophy—are even more important distinguishing characteristics. Canadian universities are, in fact, very different from their American counterparts, and for a simple reason: they are the product of a different national tradition. The Canadian province is not an American state. In one province the language spoken by the majority of the inhabitants is not understood by the majority of the inhabitants of the other ten. Several Canadian provinces were founded by men who chose *not* to seek independence of the British flag in 1776. Since language and political ideology are precisely the material from which such intangibles as spirit, tradition, and educational philosophy are woven, it can hardly be described as surprising that the Canadian university is not a carbon copy of the American.

Of the differences, three are striking. The United States has nothing comparable to the arrangements for higher education in French-speaking Quebec, where the continental European model is followed: *universities*, whose admission requirement is the baccalaureate degree, and *collèges classiques*, paralleling the French *lycées*

This article (now revised to 1962) was originally published in Spanish as "La Educación Superior en el Canadá" in *La Educación*, No. 18, Abril-Junio de 1960, pp. 21-35. It is reprinted by permission of the Division of Education, Pan American Union, Washington, D. C.

and preparing for the baccalaureate by an eight-year curriculum begun at the age of thirteen. Secondly, the major English-language universities provide as an alternative to the general liberal arts course, specialized "Honour courses" (in Classics, Political Science and Economics, Geology, etc.) which permit a considerable degree of specialization at the undergraduate level, and which normally require an additional year of study. In some institutions the Honour courses begin at the third year and thus resemble the American "majoring" system; but in several the student enters the Honour course at the second year, and at Toronto, where the system is most fully developed, and where more than half of the arts students are enrolled in honour courses, he enters at the first. Thirdly, most Canadian universities and colleges are involved in some kind of federation or affiliation scheme, an arrangement which permits the college to maintain autonomy in specific areas while enjoying the advantages of co-operation in others. The federal approach, which is a reflection in higher education of the basic principle underlying the existence of Canada as a nation, has influenced the basic structure of the Canadian university, but its chief significance lies in the area of the intangible.

I *Historical Development*

A review of the development of higher education in Canada is necessary if the present organization and administration of our universities are to be understood and if the pressing problems that face the Canadian universities in the 1960's are to be accurately identified. We shall deal in turn with the three categories into which the Canadian institutions can most conveniently be divided: the French-language universities and colleges; the English-language institutions of Central and Eastern Canada; and the English-language universities of the West. The French institutions have evolved under the auspices of the Church. The universities of the West are creations of the State. The development of the institutions in the east and the centre is a classic example of the battle of Church and State for the control of education.

French Canada

The establishment of a Jesuit college at Quebec in 1635, a year before the founding of Harvard, has permitted the claim that higher education has a longer history in Canada than in the United States. The claim is a thin one; the real beginning dates from 1663 when Bishop Laval founded the Grand Séminaire de

Québec, a theological college which ultimately developed into l'Université Laval. Until the British conquest (1763), these two institutions provided, on the whole adequately, for the post-elementary school needs of the small French colony, the Jesuit college offering in addition to the classical course some instruction for laymen in hydrography and surveying. The Jesuit college was closed in 1775 with the suppression of the Order, but its work was carried on by the Petit Séminaire de Montréal founded by the Sulpicians in 1767. The only development of the next eighty-five years was the establishment of nine additional *collèges classiques* in as many different centres.

The need for professional education in fields other than theology and for more advanced work in the liberal arts subjects, recognized as early as 1790 and increasingly advocated in the 1840's, was at last met in 1852 by the founding of Université Laval, with faculties of Arts, Law, Medicine, and Theology. The basis was the Séminaire de Québec, which became the Faculty of Theology and whose professors formed a temporary Faculty of Arts. Medicine was provided through the absorption of a proprietary medical school which had been founded in 1847, Law by the appointment of local lawyers. From the beginning the University's Faculty of Arts was conceived as a graduate school; undergraduate instruction would be provided in affiliated *collèges classiques*, the University in this sphere restricting its activity to examining. Existing colleges began to affiliate in 1863. In 1876, at the time Laval received its papal charter, it was required to establish a branch in Montreal, which in 1920 became the Université de Montréal. The classical colleges, which by this time numbered twenty-five, were now affiliated with either Laval or Montréal. By 1961-62, when the number offering one or more years of the final four of the eight-year course had risen to 111 (including two English-language colleges and twenty-four for girls), fifty-five were affiliated with Laval, forty-seven with Montréal, and nine with the Université de Sherbrooke (a classical college which gained university status in 1954).

This proliferation of classical colleges had, even by 1920, made a liberal education available at minimum cost to students everywhere in the Province. There was, however, no adequate provision for professional education in any field except law, medicine, and theology. It is true that by 1920 schools or institutes of agriculture, commerce, dentistry, engineering, forestry, nursing, optometry, pharmacy, and veterinary medicine had been established by or affiliated with Laval or its Montreal branch, but it is also true that the resources of such schools, particularly for research, were slight and that little opportunity for the necessary solid grounding in the basic sciences was provided by a secondary schooling dominated by the clas-

sical course. The resources of Laval, never abundant, were concentrated in the fields of law, medicine and—pre-eminently—theology.

The change came with the First World War. Adequate provision for science, both pure and applied, was contemplated from the beginning at the Université de Montréal, and by 1939 both Montréal and Laval, now increasingly assisted by provincial funds, had expanded their offerings to include most of the modern subjects. The experience of World War II intensified a movement already well advanced. Today Laval and Montréal are universities in the North American as well as the European sense.

Brief mention must also be made of French-language institutions outside the Province of Quebec. All are Church-controlled and all sprang initially from a classical college base. The Atlantic provinces are served by the bilingual Saint Joseph's University, at Memramcook and Moncton, N.B. (1868); Collège de Sainte Anne, Church Point, N.S. (1892); Université du Sacré Coeur, Bathurst, N.B. (1899); and Université St. Louis, Edmundston, N.B. (1946). These are small institutions with enrolments well under 500, as are St. Boniface College, Winnipeg (1866; since 1877 an affiliate of the University of Manitoba), and a dozen *collèges classiques* in Alberta, Saskatchewan, and Ontario, affiliated with one or other of the French-language universities. The University of Ottawa, on the other hand, is a major institution. Founded in 1848 as a bilingual college to serve the needs of the Roman Catholic population on both sides of the Ottawa River, its development has been similar to that of Laval: initially a classical college, slow expansion to 1920 (including abortive essays into engineering and advanced science), steady expansion to 1939, rapid expansion since 1945. As in Laval and Montréal, the advance has been made possible by provincial funds, but control remains in the hands of the Church.

Eastern and Central Canada

Canada remained a French-speaking colony for twenty years after the Conquest; English-speaking Canada effectively dates from the immigration of the United Empire Loyalists who left the United States at the close of the Revolutionary War. It was these colonists, fresh from the New England States, who initiated the movement to establish colleges in Canada. Their efforts were cultivated by enlightened colonial governors who saw a threat to the British colony's existence in the republican atmosphere of the American colleges to which Canadians would have to resort for advanced education unless Canadian colleges were established.

Naturally, both loyalists and governors were supporters of the establishment, and the result of their efforts was the chartering of three King's Colleges, at Windsor, N.S. (1788), Fredericton, N.B. (1800), and York, Upper Canada (1827). Each was a little Oxford college in theory, each in practice was forced at the outset to limit itself to secondary education, each had a charter which restricted staff or students (or both) to persons who would subscribe to the Thirty-nine Articles of the Church of England, and each was to be supported by public funds. The protests of the Baptists, Methodists, Presbyterians, and Roman Catholics—all with memberships comparable to the Anglican—were immediate and sustained, the result being the chartering of four more colleges: in the Maritimes, Dalhousie at Halifax (1818) and Acadia at Wolfville (1838); in Upper Canada, Queen's at Kingston (1841) and Victoria at Cobourg (1841). In addition, a charter for McGill University, an undenominational college in Montreal, had been granted in 1821, and this, by the reverse process, led to the founding of Bishop's College at Lennoxville by the Church of England in 1843. Instruction was immediately offered at those institutions which were the product of denominational zeal—Baptist Acadia, Methodist Victoria, Presbyterian Queen's, and Anglican Bishop's; but the theoretically undenominational institutions, Dalhousie and McGill, had great difficulty in opening their doors. McGill opened a flimsy medical school in 1829 and an even flimsier arts faculty in 1843. Dalhousie, after a twenty-year debate, was opened in 1838 and closed in 1843, not to be revived until 1863.

By 1850 the situation was ludicrous. Scattered from Halifax to Toronto were nine colleges, each with a handful of students and all in financial plight. Yet by 1860, the situation was well in hand. McGill had over 200 students in arts, medicine, law, engineering, and commerce; it had a substantial building, an attached normal school, an affiliated arts college, an endowed chair (English), a respectable library, a natural history museum, and an adult education programme. Dalhousie was about to re-open on a solid and permanent basis. King's College, Fredericton, had been transformed (1859) into a public institution called the University of New Brunswick. Acadia, Bishop's, Queen's, Victoria, and King's College (Windsor), had clear identities, respectable staffs, assured enrolments, and permanent buildings. King's College, Toronto (the new name had replaced York in 1834), had become an undenominational University College designed to prepare students for the examinations of a second institution, the University of Toronto, whose functions—on the model of the University of London—were restricted to examination and degree granting. The King's College endowment had gone to University College, whose massive building, completed in 1859 at a cost of £80,000, was evidence of its flourishing, if "god-

less", state. In protest, the Church of England had obtained a charter for a new university in Toronto, and by 1860 the University of Trinity College was also flourishing, as was Mount Allison (1858), yet another Methodist College in New Brunswick. How did all this come about in ten short years?

One factor was the appearance on the scene of certain individuals who, as president or principal, galvanized each institution into life. But the main factor was the emergence of the colonies from a largely agricultural economy. McGill's transformation was to a remarkable extent the result of the personal efforts of J. W. Dawson, appointed Principal in 1855; but Dawson arrived at Montreal just as it was becoming a great commercial centre, whose industrialists were in a position to support his schemes. The 1850's have been called the "golden age of the Maritimes"; shipbuilding, lumbering, the cod fisheries, and agriculture provided a balanced economy which the Atlantic provinces have been seeking ever since. And in Upper Canada the population rose from 455,000 in 1841 to 1,396,000 in 1861.

The position of higher education in Canada in 1860 is impressive, far in advance of any other British colony and comparable to the offerings in the United States and Great Britain. The curricula were more liberal and flexible than Oxford's or Harvard's, many of the professors were engaged in serious research, and the organization of sound secondary schooling was beginning to provide a supply of well-prepared matriculants. But by 1890 the Canadian institutions had fallen behind a reformed Oxford, a revitalized Harvard, an expanded London, while Canada had nothing to compare with such new establishments as Johns Hopkins, M.I.T., and Cornell. To keep pace with developments in science and professional education, funds in large quantity were required, and such funds could come from only two sources—the industrialist and the State. Since at this stage the Canadian economy was incapable of producing an Ezra Cornell, the only possibility was the State. But the universities were largely under denominational control. Only in New Brunswick and Ontario was the Province committed to the support of higher education, and in both the commitment was partial. Throughout this period the claims of the denominational colleges for a share of the public funds were persistent but unavailing. They were themselves inadequately financed, and their attack on the public institutions prevented the expansion of the latter, with the result that no institution was able to establish itself as a major university with proper facilities for professional and graduate study. Nor would a major university be established until the competing claims of small colleges, whether public or private, were reconciled; or until private fortunes were first made and then placed at the disposal of individual institutions.

In the course of the half-century from 1890, many Canadian colleges benefited from substantial gifts. In most cases, the donations have enabled the institution to attain a respectable position—to offer a sound arts course and a solid basic training in a limited number of professional or semi-professional fields. For a few—Queen's, Dalhousie, and most notably, McGill—the donations have been sufficiently substantial to permit research work of a high order. Toronto, too, has been the recipient of substantial donations, but its claim to be a major institution rests on a different solution to the financial problem.

In 1887, after forty years of Royal Commissions and legislative debate, Toronto became a federated university. The university itself would provide instruction in all fields except theology; other universities entering into federation would maintain their right to grant degrees in theology but otherwise would restrict themselves to instruction within the University's Faculty of Arts. The colleges, including the undenominational University College, would teach the humanities (languages, philosophy, religious knowledge). The University would provide departments in the social, natural, and physical sciences, and would be entirely responsible for professional faculties, schools, and institutes. In due course this arrangement was entered into by Victoria (which moved to Toronto from Cobourg), Trinity, and St. Michael's (a Roman Catholic college founded in Toronto in 1852) to the great advantage of the University's arts course, for the teaching power of the federating colleges was added to that of University College in the area of the humanities, while the equipment necessary for solid departments in the sciences was made available to a provincial university which now had a clear claim to state funds.

But the 1887 Federation Bill did more than resolve the problem of arts instruction. By restoring the University to its teaching role, it served to concentrate the resources devoted to professional education. Its Faculty of Medicine took the place of four proprietary schools. The provincial School of Practical Science (1876) became the Faculty of Engineering. In due course schools operated by the professions became Faculties of Dentistry and Pharmacy. Two theological colleges, Anglican Wycliffe and Presbyterian Knox, became affiliated institutions, as did the provincially supported Ontario College of Agriculture (1876) situated sixty miles away at Guelph. The State, with all its potential resources, had entered fully into the field of higher education, yet the rights of the Church had been satisfactorily maintained.

Perhaps the most significant result of the new Toronto arrangement was its influence on the development of other Canadian institutions. The University of Manitoba is a case in point. Founded in 1877 as an examining university, it orig-

inally provided instruction by small denominational colleges, Anglican St. John's (1871), Presbyterian Manitoba (1871), and Catholic St. Boniface (1866). In 1890 (three years after Federation at Toronto) the colleges began to pool their resources for the teaching of science, and in 1904 university professorships were established in science. Its subsequent development, strongly influenced by a 1906 University of Toronto Act which tightened a number of loose links in the federation scheme, has brought it close to the Toronto pattern. A variation on the Toronto theme is provided by the University of Western Ontario in London. The outgrowth of a small Anglican college (1863) and of a proprietary medical school (1881), it developed in the twentieth century an arts faculty which at one stage embraced denominational colleges in four other cities in Western Ontario. One of these, Waterloo College, has since become the University of Waterloo, and is in its turn adopting the federated structure: two denominational colleges are already on the campus. The Maritimes, too, offer actual or potential examples of federation. In the 1920's an attempt was made to draw together the many small colleges of the area in a central university at Halifax—the undenominational Dalhousie. But despite the strong encouragement of the Carnegie Corporation, including the offer of liberal financial support, the claims of denominationalism were too strong; only King's College, Windsor, whose building burned to the ground at a critical juncture, joined Dalhousie. The remainder have gone their own merry if impecunious way, co-operation being confined to the agreement to confine professional education in such fields as engineering and medicine to the introductory years, all students going to central schools in Halifax for advanced professional study. But in 1962 the principle of federation has once again been advanced as the solution to Maritime problems. The Royal Commission on Higher Education in New Brunswick has recommended the transformation of Saint Joseph's University into a University of Moncton with Sacré Coeur, St. Louis, and Saint Joseph's itself as federated colleges.

A great many universities and colleges, then, continue to be scattered throughout Eastern and Central Canada—St. Francis Xavier at Antigonish (R.C., 1866), McMaster at Hamilton (originally Baptist, 1887, but now non-denominational), St. Dunstan's at Charlottetown (R.C., 1917), St. Mary's (R.C., 1918) and Mount Saint Vincent College (R.C., 1925—Canada's only degree-granting college for women) at Halifax, Carleton at Ottawa (undenominational, 1943), Sir George Williams at Montreal (Y.M.C.A., 1948), Memorial at St. John's, Newfoundland (provincial, 1949) are among the names that have not yet been mentioned. Since 1959 the Province of Ontario has granted charters to York University (Toronto), the Royal Military College (Kingston), Laurentian University (Sudbury), and the University of Water-

loo; it has also agreed to grant a charter to Trent Universty (Peterborough). Most institutions are now in receipt of public funds. In Ontario, for example, the provincial Univeristy of Toronto is only one of twelve universities that receive provincial grants. A purely denominational college remains ineligible, but a variety of means has been adopted to obtain public funds for work that can be described as non-denominational. In 1956 Roman Catholic Assumption University at Windsor (a University of Western Ontario college which attained independent status in 1953) established Essex College, with an independent Board of Governors, to provide its work in commerce, engineering, etc., and this college, being undenominational, could receive grants. But the further step has now (1962) been taken with the announcement that the charter will be assumed by an undenominational university with Roman Catholic Assumption becoming a federated college on the Toronto model. Church and State, it will be seen, have become partners rather than rivals in the field of higher education.

The Universities of the West

In 1903 the Premier of the Northwest Territories (which in 1905 became the Provinces of Saskatchewan and Alberta) introduced a bill making provision for "one university and one university only for the Territories, in order to avoid a repetition of the evils which by reason of competing institutions have been experienced by the Eastern Provinces". The bill passed, but, more important, the principle underlying it was adopted in the actual establishment of all three universities of the West. Each is the sole degree-granting institution in its province.

The Universities of Alberta and Saskatchewan were established on paper almost as soon as the Provinces were formed, and they opened their doors in remarkably short order, Alberta in 1908, Saskatchewan in 1909. Both began as arts faculties, but professional education, notably agriculture, was a concern from the first. Though British Columbia became a province in 1871, its university did not open until 1915. A University had been authorized (on a monopolistic basis) in 1890, but until 1915 instruction was limited to one or two years of arts provided through the agency of the McGill University College of British Columbia, using the McGill syllabus. The long postponement was a reflection of the rickety state of provincial finances, a condition which continued to plague British Columbia for many years and which, in Alberta and Saskatchewan, delayed their full development. But the development has been steady. Despite the complications of the First World War, all had established Faculties of Agriculture, Engineering, and Law by

1920. Despite the droughts of the 1920's and the depression of the 1930's, by 1939 all three had added instruction in nursing and commerce, and each had added a number of other professional fields—Alberta five, Saskatchewan six, and British Columbia four. Throughout this period, the influence of the American state university was marked, and this is also true of Manitoba's development since 1900. Despite its different early history, it too is the only degree-granting university of its province and can properly be called a university of the West.

Since 1945, the expansion of these Western universities has been spectacular, and they are now among the most important universities in Canada. Indeed, they have reached a point where numbers become a problem. Their remarkable growth is the consequence of a concentration of state funds in a single institution, but has the point come where distribution rather than concentration is a necessity? Apparently yes: a University of Alberta in Calgary has been established under the control of the University of Alberta in Edmonton, but there are many signs to indicate that within a very few years it may well be an independent University of Calgary. Victoria College on Vancouver Island, long a junior college affiliated with the University of British Columbia, is now a four-year college, and again independence is a definite possibility. A similar situation has developed in Saskatchewan where the junior college at Regina has been authorized to teach to degree level under the name "University of Saskatchewan, Regina Campus".

II *Present Organization and Administration*

The influence of three different countries will have been noted in this review of historical development—France in Quebec, Britain in Eastern and Central Canada, and the United States in the West (for the Universities of the West have grown up in the shadow of the American state university). One would therefore expect considerable variation in the organization and administration of the Canadian institutions. In fact, however, the English-speaking Canadian universities are very similar to each other in basic organization. The pattern is North American, rather than European. The pattern of the French-speaking universities is Roman Catholic.

The basic unit is the Department, staffed (according to its size) by professors, associate professors, assistant professors, and lecturers (sometimes called instructors) and presided over by a permanent Head (rather than a rotating chairman). Departments are grouped in Faculties, presided over by a Dean, who is often also a Department Head and who always does some teaching. The affairs of the Faculty

are controlled by its Council, of which all professors, associate professors, and assistant professors are members, but significant changes in the academic programme (admission requirements, changes in a course of studies, new courses of study) must be approved by the Senate, a body of from 50 to 200 persons, including representatives of all divisions of the university and often of appropriate outside organizations—professional societies, municipal councils, the provincial Department of Education. The Senate is ultimately responsible for all academic matters. But financial control, with its inevitable implications for the academic programme, is vested in a Board of Governors, a group of from 15 to 30 non-academics, whose appointments reflect the institution's basic character—whether provincial, denominational, municipal, or some combination of the three. In a *corporate* sense, the Board of Governors is the university.

The most important person at any Canadian university or college is the President (Principal, Provost, Rector), chiefly because he is the link between its various parts. A member of the Board of Governors, he normally presides over the Senate and is a member of all Faculty Councils. Because he has sole power to make recommendations to the Board for appointments, promotions, and dismissals (in practice a power exercised on the recommendation of deans and department heads) and because he is normally the only spokesman for the faculty on the Board of Governors, his relations with the teaching staff are of critical importance. Fortunately, the century-long tradition that the president should have a strong academic background has been maintained even though the position has become one devoted almost exclusively to administration and public relations.

The Canadian academic year runs from late September to early May and includes twenty-six weeks of teaching. Neither the credit nor the semester system is widely followed. The student registers in the first, second, etc., year of a particular course, selects a grouping of subjects which constitute a year's work in that course, attends the appropriate lectures and laboratories (normally three hours a week for each subject), submits the appropriate essays and reports, and writes final examinations in each subject. If successful at these examinations, he is granted standing for that year of his course. If he fails one or two subjects he is usually allowed to write supplemental examinations in the late summer in these subjects, and if successful he advances to the next year. The full year's work must normally be repeated if standing is not obtained. The credit system is used in extramural programmes for students who take one or two subjects during the winter or at a summer session.

The undergraduate course is normally of four years' duration and is usually begun at seventeen. In a number of provinces the first year may be taken in the

high school (a senior matriculation year), and in Ontario this is the normal procedure. Honour courses, with some exceptions, require an additional year, and most professional courses (engineering, pharmacy, forestry, nursing, etc.) require five years from high school graduation. Dentistry and architecture require six, while at least two years of study at the university is required for admission to the four-year medical course. Graduate courses in Canada are of the same length as in the United States, but an Honour B.A. is normally required for admission to the one-year Master's programme.

The average cost of a year at university (tuition, and other academic charges) is \$400 for arts, \$500 for engineering and dentistry, \$600 for medicine, in addition to which the student requires about \$500 if he lives at home and \$1000 if he does not. The majority of students finance their own university education through parental help or summer employment. About 25% receive scholarship or bursary aid ranging from \$100 up, with about 5% receiving full tuition scholarships. All institutions have loan funds upon which the student can draw. Student fees represent about 30% of annual operating income (including research but excluding such ancillary enterprises as cafeterias, residences, and book stores); the remainder is derived from the Federal government (24%), the provincial governments (36%), endowment (4%), other sources (11%). The proportions vary widely from institution to institution. The provincial grant at Alberta is just over 50%, at St. Francis Xavier just under 10%. Revenue from endowment and gifts at McGill is about 30%, at Saskatchewan about 6%.

Despite the constitutional assignment of education to the provinces, the Federal Government is directly involved in higher education in one field—that of the service colleges, the senior of which, the Royal Military College at Kingston (1876), received a university charter in 1959. For many years its graduates were admitted to the final year of degree courses in engineering and commerce at other institutions. Federal support for the universities is normally channeled through direct grants for research purposes or through the agency of the Canadian Universities Foundation. The National Conference of Canadian Universities and Colleges (of which the CUF is the executive agency) began in 1911 as an informal gathering of university presidents, and until 1939 its activities were confined to an annual meeting at which university problems were discussed. During the Second World War, however, it became the intermediary between the Government and the universities, and this position it maintained in the post-war years, first in connection with the many veterans who received university scholarships from federal funds and later as the university question became a national issue. Recently the financial activities of the NCCUC have

been assigned to the Canadian Universities Foundation, the NCCUC itself reverting to the role of academic parliament.

While professors are prominent at the annual meetings of the NCCUC, presidents and deans are even more prominent, and its executive is mainly drawn from the ranks of administration. The professors themselves are nationally organized in the Canadian Association of University Teachers, founded in 1951. There is also a National Federation of Canadian University Students.

III *Present Problems*

At the Canadian Conference on Education held in 1958, Dr. A. W. Trueman, a former president of two Canadian universities and now the Director of the Canada Council, opened an address with these words: "There is nothing wrong with Canadian education that a great deal of money won't cure."

In a very real sense, the comment defines the basic problem facing the Canadian universities in the middle of the twentieth century. If love of money is the root of all evil, money itself is the key to a remarkable amount of good. It is perfectly clear that enrolments are steadily increasing and that shortly they will increase in dramatic fashion. The 1961-62 total enrolment of 128,894 full-time students is expected to double by 1969 or 1970. Buildings, equipment, and staff must be provided to accommodate the doubled enrolment, and a great deal of money is needed if the accommodation (in the broad sense of the word) is to be adequate.

Nonetheless, the real problem is human rather than material. Buildings and equipment are merely aids to the learning process. The teacher and the student are the crucial factors. The really pressing problems are the recruitment of staff and the attitude of students, and these are related problems since the attitude of the student is the ultimate clue to the solution of the staff problem. Unless a great many students become smitten with the desire to pursue knowledge for the rest of their lives as university professors, the necessary staff will not be available in 1968 or 1975. And unless a great many more students become smitten with the desire to dispense knowledge for the rest of their lives as teachers in our elementary and secondary schools, the majority of matriculants will not be adequately prepared for the benefits which a university education can provide.

Graduate training is a necessary preparation for university teaching and for the undertaking of research. There are two ways in which a nation can provide for graduate training—by establishing graduate schools and by offering scholarships which permit qualified students to attend graduate schools elsewhere. Canada does

provide a number of graduate scholarships for study in other countries, but the sum involved is offset by the scholarships offered to foreign students for graduate study in Canada. How flourishing are Canadian Faculties of Graduate Studies?

Before 1939 only two universities could properly be said to have graduate schools—McGill in science and medicine, Toronto in all major fields. Most institutions, it is true, provided an M.A. programme, but Toronto and McGill alone offered the doctorate. Since the war the improvement has been rapid. Eighteen universities now offer the doctorate, ten in more than 10 fields, with Toronto (44), Montreal (37), Ottawa (31), Alberta and McGill (30), British Columbia (29), and Laval (26) heading the list. The number of full-time graduate students (all levels and fields) in 1961-62 was 7,347 contrasted with 1,741 in 1940 and 407 in 1921. The contrast is perhaps impressive, but it must be remembered that the figure 7,347 includes a substantial number of foreign students who will return to their own countries and that the increasing demands of business, industry, and government for research workers must be supplied from this source.

On the whole, the prospects for higher education in Canada are bright. The attitude of the public towards higher education has improved markedly since 1950, and this is reflected in the attitude of provincial and federal governments, whose financial support of the universities has steadily increased. A basis for the new universities and colleges which undoubtedly will be required in the next twenty-five years is readily at hand in the many small colleges (for example in Quebec) which have already developed a tradition within a federated scheme. The century-long tradition of such institutions as Dalhousie, Laval, McGill, and Toronto is a guarantee that standards will remain high. Finally, the Faculty of Arts is firmly established as the central core of all Canadian institutions. Canada's inability to keep pace with the American expansion of the period 1860-1920 was in one sense a gain. Because graduate studies were slower to develop and because professional education expanded less rapidly, the undergraduate Faculty of Arts had time to solidify its position, and within the Faculty the traditional departments (Classics, English, Mathematics, and Philosophy) maintained their central role. There was time, too, to establish the Honour undergraduate programme, one of the great strengths of higher education in Canada.