



National Identity and the Idea of the University in 19th-Century Scotland

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Abstract:

In the mid 19th century Scottish universities still provided an education for a larger proportion of the population than in England, but from the 1820s there was growing recognition of the need for change. The German university with its generous funding, specialized chairs and research mission, seemed to offer an alternative model for reformers seeking to preserve the integrity of Scottish higher education. In organization (if not in endowment), the Scottish university seemed more like the German than Oxford and Cambridge. The large number of Scottish students at German universities seemed further evidence of cultural affinity. From the 1890s Scottish universities began to develop the German idea of research, but their own distinctiveness was being diluted in an emerging “British” system of higher education.

Introduction:

The two countries in Europe, where university education has been most largely available to the middle classes, are Scotland and Germany... It may indeed be said without exaggeration, that England would long ago have been forced to establish universities, after the Scottish or German model, if the universities of Scotland and Germany had not furnished her with a large supply of men well versed in the sciences connected with the useful arts. (Andrews, 1867, pp. 87-8)

Such expressions of national pride are frequently to be found in the debate on university education in Scotland throughout the nineteenth century. Scots often contrasted the cheapness and accessibility of their universities, the absence of religious tests for staff (after 1853) and students, and their strength in fields like medicine and engineering, with the expensive, exclusive, sectarian and apparently backward-looking education offered by Oxford and Cambridge. It was argued that these generously endowed English universities merely served a social elite, while poorly-funded Scottish universities were genuinely ‘national’ institutions, on a par with universities in Germany. Scottish universities were (except for tiny St. Andrews) located in cities, their teaching was organized by professors (not by college tutors), and their students, though they might claim a certificate of attendance at lectures, were not required to be ‘in residence.’ These ‘Continental’ features convinced Scottish university reformers in the middle decades of the nineteenth century that new ideas of university education derived from Germany might be absorbed more easily than in England, and that in this flexibility lay the key to the survival of a distinctive Scottish identity in higher education.

The influential German model:

As we shall see, in some respects the reformers were successful. From the 1890s onwards, Scottish universities began to accept the ‘German’ idea of a ‘research mission’, but by this stage some of their distinctive features had also been diluted or had disappeared completely. The introduction of a formal entrance examination and the ending of the uniform arts curriculum (both in 1892) were innovations that brought Scottish universities more into line with their newer English provincial counterparts. The age at which students matriculated began to rise, and new honours degrees allowed them greater specialization in their studies. Perhaps most importantly, the old curriculum based on the classics and philosophy now remained in residual form only, as a general degree for weaker students, rather than as a common experience for all.

This process of assimilation into the British system of higher education was the subject of a lengthy critique by George Davie (1964), first published in 1961. Davie’s interpretation which emphasized ‘anglicization’ has been frequently criticised (Anderson, 1983; McPherson, 1973; Slee, 1987; Withrington, 1961) for overlooking the extent to which the changes were also a considered response by Scottish universities to social and economic change. From this later perspective, new demand for specialized knowledge made the Scottish tradition of general education (Davie’s ‘democratic intellect’ embodied in the old uniform curriculum) seem outdated, a shift broadly in line with developments

elsewhere in Europe and North America. Given the importance of the German university, we might then reformulate Davie's question to ask to what extent the Scottish university was 'Germanized' in the nineteenth century.

The German university was a powerful example for the organization of higher education from the time of the foundation of the University of Berlin in 1810 to the passing of the act to reform the University of London in 1900, and even down to the outbreak of war in 1914. Robert Anderson (1992a) has noted that "university history in the late nineteenth century is chiefly about the imitation and triumph of the German model, particularly through the adoption of the research ideal" (p. 336). The process by which ideas are transmitted, however, is complex, and the term 'imitation' needs some qualification, since it may involve simple misunderstandings. Thus "while certain conventional images of German learning were certainly invoked by academic reformers in the United States (and elsewhere) during the nineteenth century, those images may have borne little resemblance to German realities" (Ringer, 1977, p. 409). Further, while the intention might be to imitate, the end result was more often transformation or the 'mutation' of ideas when transplanted in a new environment (Ashby, 1967). These difficulties seem to have been recognized by Reinhold Pauli, Professor of History at Göttingen, who told the 1876 Royal Commission on Scottish universities, "I am not here to recommend any German institution, because nobody can be more convinced than I am, that just as little as we in Germany are able to transfer the English constitution to our political institutions, so little can our educational system be transferred to English or Scotch institutions" (Royal Commission, 1878, p. 622).

This Royal Commission was just one of several official enquiries into university education in nineteenth-century Scotland. The Royal Commissions of 1826 and 1876 reported in 1831 and 1878 respectively, and bills to reform Scottish universities passed through Parliament in 1858 and 1889. Such government scrutiny and control (of curriculum, as well as university organization), together with the greater reliance of Scottish universities on government funding, were seen by Scots as characteristics shared with Germany rather than England. "Scotch feeling," it was argued, was "entirely different from the English on this point. The Scotch people do not wish to see their universities independent of the State, and they believe with the Germans that it is the duty of the State to render them as complete as they can be made" (Donaldson, 1883, p. 11). In fact, German universities were different from Scottish ones in certain key respects (for example in having no common curriculum, and in being more tightly controlled by the state), and it was generally the more generous financial provision for them that attracted attention in Scotland.

Prussian university reforms in particular seemed to have a relevance to Scots. Scotland and Prussia were both relatively poor countries with richer and more powerful neighbours, though Prussia in the first half of the nineteenth century may have been the poorer of the two "with the exception of Norway and Sweden, perhaps the poorest country in Europe" (Lorimer, 1850, p. 136). Yet Prussia led Europe in the development of university education, as well as having a well-organized system of schooling comparable to the Scottish system (Donaldson, 1874). Scotland now needed to bring its universities up to the Prussian standard:

Scotland has discovered that she is not the pattern country of Europe in all things; and specially in the domain of education we have been forced, however slowly and unwillingly, to admit an inferiority to Prussia - a country that a hundred years ago was only one remove from barbarism... The Universities of Scotland, when contrasted with those of England stand favourably forward, both as being more comprehensive in their scientific scheme, and more popular in their tone... But steam-boats and steam-coaches in these latter days have brought us into frequent contact with other countries besides England; many of our young men have studied in Germany; and minds given to comparison have been driven to very strange results by setting the practice of Bonn and Göttingen against the practice of St. Andrews and Aberdeen. Germany is a poor country, a much poorer country than Scotland; and yet... German Universities both stand on a popular basis as broad as ours in Scotland, and rise to a height of scholarly excellence to which Oxford, with all its artificial forcing and cramping, cannot attain. Here, therefore, if we wish to have models, let us fix our admiration; from Germany, if we wish to take our academical stature fairly, let us borrow our standard... (Blackie, 1848, pp. 26-7)

The writer, John Stuart Blackie (1809-95), Professor of Latin at Aberdeen, was a 'romantic nationalist' who saw German universities, not just as sources of scholarship, but also as "strongholds of bourgeois culture and national consciousness" (Anderson, 1983, p. 54). His admiration for Germany was shared by other Scottish university reformers, but not by the older generation of professors, like George Dunbar (1774-1851), to whose chair of Greek at Edinburgh Blackie succeeded in 1852. "I do not care in what estimation the Universities in Scotland are held on the continent, or even in a neighbouring kingdom, by conceited pedants or foreign adventurers", Dunbar wrote in reply to Blackie (Dunbar, 1848, p. 10). In 1848, the year of revolution, "German folly and nonsense" meant "muddled-headed... democratical professors" and student unrest: "better to abide by our old-fashioned systems and hereditary prejudices, than admit innovations that would unsettle everything, and plunge us, like the continental nations, in anarchy and confusion" (p. 10). Pride in Scottish universities thus did not always lead to support for reform.

It was difficult, however, to deny the historic links of Scottish universities with the Continent. This point was made by James Lorimer (1818-90), Professor of Public Law at Edinburgh and another supporter of reform:

The ancient intercourse which existed between Scotland and the Continent is still to be traced in many of the peculiarities which broadly distinguish us from our southern neighbours. The Scotchman exhibits less of the insular character, and sympathizes more readily with the German or Frenchman than the Englishman... Imperfect and undeveloped as our Universities have been suffered to remain, we believe that the superior thoughtfulness and intelligence of the Scottish character, as compared with that of the other British races, its love for free intellectual research, its deeper sense of a higher life than that of the senses, have been in no small

degree kept alive by the excellent nature of their general arrangements.
(Lorimer, 1850, pp. 325, 307)

The “peculiarly unprogressive character of the English Universities...[was] in a great measure to be attributed to their exclusion of all foreign elements.” They needed “radical and sweeping changes,” but the situation in Scotland was quite different:

With the general outlines of our University system...the people of Scotland have very great reason to be satisfied. Thanks to that peculiarity of national character which causes it to present a certain medium between the formality of our Southern, and the formlessness of our Continental neighbours, these institutions are capable of being rendered more practically useful than the German Universities, without degenerating, like those of England, into a shapeless mass of abuses and anomalies.
(Lorimer, 1850, pp. 325, 307)

This belief in the superiority of Scottish over English universities because of their openness to outside influences was a feature of the reform party led by Blackie and Lorimer. Both men argued for the need to preserve the Scottish university tradition, but also to graft onto it the vigour of the emerging German research ethic. It was not so much a specific institutional blueprint which Germany provided, but rather a general approach to university education.

At this stage (the 1850s) the ‘research ideal’ so influential in the later nineteenth century was only beginning to develop, but what these men found in Germany was intellectual seriousness and devotion to learning, which they contrasted with the elementary character of much Scottish teaching, and the way in which it encouraged a superficial, rhetorical or ‘metaphysical’ approach rather than a truly scholarly one... (Anderson, 1995, p. 461)

Yet, even in their unreformed state, Scottish universities seemed to the German observer more like those of Germany than either Oxford or Cambridge (Huber, 1843a; Huber, 1843b). Being largely non-collegiate and non-residential, with lectures open to all on payment of a modest fee, Scottish universities attracted a great variety of students, in terms of age (as young as fourteen but also men in their thirties), full- or part-time status, and, most importantly, social background, with some 20% defined as ‘working class’ in the 1860s (McPherson, 1973). These elements, together with the simple lifestyle of many students (the origin of the ‘lad o’ pairs’ myth), the provision of modest bursaries for poor students, the freedom to move between universities, and the practice of most students not formally graduating (only one of six students did so before the 1880s) was said (a little inaccurately) to resemble the German tradition of *lernfreiheit* (Donaldson, 1883).

Another feature of the Scottish university which seemed similar to German practice in the nineteenth century was the extensive provision of medical and legal education. The balance between professional and general studies, between practical knowledge and the ‘philosophical core’ in the traditional Scottish curriculum, meant

... that the arts curriculum of the undergraduate degree-course was also, in a very real sense, a vocational training: it was a preliminary general education for lawyers, ministers and doctors; it was the main gateway into school teaching; its wide curriculum, which sometimes under the designation of particular philosophies offered much practical science teaching in chemistry, physics, mathematics, natural history, also instruction in economics and rudimentary social analysis and psychology, and in English, was available...to those wishing to enter careers in trade, in land surveying, in the armed services, etc... (Carter & Withrington, 1992, p. 9)

Whether the aim of this Scottish education differed significantly from that pursued by Oxford and Cambridge has been questioned (Wright, 1979), but the degree to which it seemed to correspond to the German university model was what mattered to Scots.

On the other hand, Scottish students were generally much younger (in 1868 about 20% were 15 or younger at matriculation), and the distinction between education at the secondary and tertiary levels was less clear than in Germany. This was a matter of concern for Scottish reformers and German visitors alike. In his report to the Schools Inquiry Commission of 1865-67, Matthew Arnold described university teaching in Scotland as being at the level of “mere school classes” (Arnold, 1964, pp. 287-8). This was in fact based on remarks by the German educationalist Ludwig Adolf Wiese on his first visit to Scotland in 1852. Wiese (1854) was much quoted by Blackie in his campaign to raise the age of entry to university:

They divide the students into classes like the schools for the purposes of instruction. As to what they accomplish it is impossible for a foreigner to pass a severer judgement than they do in the country itself. It is evident that the majority come up to the university too young and too little prepared, sometimes direct from parish schools while they are still mere boys, so that the professors have to go through quite puerile subjects with them - the elements of Greek for example... What they [the reformers] would require in Scotland for admission to university is about what we would expect from a well-advanced schoolboy in the third form... The universities, as they exist at present, allow the young people a degree of liberty altogether inconsistent with the extent of their literary culture... The accomplishments of the high school in Edinburgh surpass those of the universities, and more nearly approach to those of our gymnasia, especially since the school has been under the direction of Dr Schmitz... (Wiese, 1854, pp. 154-6)

Returning to Scotland in February 1876, Wiese (1877) again noted: The Scottish universities compared with the old English ones, are poor, and like some of the Irish ones receive aid from the state. They are not what their name indicates, but have even more than Oxford and

Cambridge the character of schools with lower and higher classes. At the beginning of the lesson the professor calls over the roll, puts questions, tasks are given out, &c. Each subject of general culture is always represented by only one professor... A minimum amount of knowledge is not required on admission; sometimes boys of thirteen years are enrolled as students. Those who have attended a high school are on average sixteen years old, and enter the higher class; besides these there may be young men of twenty-five who have come from country districts... Professor Blackie in one of his writings says: 'The Faculty of Arts in our universities has been dragged down to the level of school teaching, and the professors have been forced systematically to denude themselves of all their highest professorial and academical functions.' Many of the students are entirely without means, and it still happens that during the more than six months' holiday they have elsewhere to earn their means of living in the university town during the winter. A life such as students lead at Oxford and Cambridge is not known in Scotland, any more than the *vita communis* and the discipline of the colleges. (pp. 70-1)

The 'persevering industry of Scotch students' aside, these accounts summarized all the weaknesses which concerned the Association for the Extension of Scottish Universities — the absence of an entrance examination, the elementary level of much class work, professors without assistants and students unprepared, too few university chairs and meagre endowments. The Association had been established in 1853 by Lorimer, Blackie and other reformers, including the translator of Wiese's 1876 book, Leonhard Schmitz (1807-90), at this time Rector of Edinburgh High School. Schmitz was a noted teacher of classical languages and English translator of works by the historian Barthold Georg Niebuhr, under whom he had studied at Bonn, gaining a Ph.D. in 1841 (Niebuhr in turn had studied at Edinburgh University in 1799). The Association set out to make "Scottish Universities centres around which a learned class...(might) form itself," and to place them, "as Educational Establishments, on something like a footing of equality with the Universities of other countries where the Professorial system prevails" (Lorimer, 1854, p. 64). It demanded an increased endowment for the universities to allow adequate support for existing chairs, together with the creation of fifty new professorships in "those departments of Philosophy, Scholarship, and Science, which from their very nature... (could not) safely depend on popular sympathy" (Lorimer, 1858, pp. 90, 100) (professorial income remained linked to student fees until 1892). This expanded professoriate would allow some division of labour within subject areas and, with the creation of junior professorships and tutorships, would create a career structure within Scottish universities on the German model.

By the 1870s there were still Scots who defended their universities against the charge that "they were simply large Public Schools of the English type, and of a rather inferior sort" (Veitch, 1877, p. 74), but witnesses before the 1876 Royal Commission on Scottish universities (including Association members) pressed for German-style reforms: an entrance examination like the *Abitur*, and teaching assistance to professors by *Privatdozenten* (Royal Commission, 1878). A decade later James Bryce (1838-1922),

Regius Professor of Civil Law at Oxford, made a similar suggestion for ‘extra-mural teaching’, already the practice in medicine:

The arrangements made for Privat-docenten in Germany suggest that much may be done to meet the needs of the Scottish universities by developing a system of what might be called extra-mural teaching. It might with advantage be increased, regulated, and made intra-mural, that is to say, a more definite legal recognition might be given to young men admitted to teach, a better status be conferred upon them, and permission be given them to use university classrooms. (in Conrad, 1885, pp. xxiv-xxv)

By the late nineteenth century the research-based university was a reality in Germany, and the relatively meagre provision of government funding to Scottish universities was causing alarm. The Scottish scientist-politician Sir Lyon Playfair (1819-98) used his Presidential Address to the British Association to complain that Scotland’s four universities together received only £30,000 a year compared to the £43,000 given to Strasbourg, a slightly lesser amount to Leipzig, and the £391,000 “yearly out of taxation” by “Prussia, the most economical nation in the world” to its universities (Playfair, 1886, p. 12). More unfavourable comparisons could be derived from surveys of higher education in Germany carried out by Conrad (1885) and Paulsen (1906). The first had been translated by a master at Glasgow High School (John Hutchison) and had a lengthy introduction by James Bryce. The second had an introduction for the English edition by Michael Sadler (1861-1943), Professor of Education at Manchester, and author of an important report on German secondary education (1902). Both books were evidence of continuing interest in German universities, especially in their provision for research, without which, as a Scottish academic lawyer noted, no British university could compete in attracting foreign students (Coldstream, 1888).

Oxford and Cambridge still lagged behind a second-class German university in scientific research, despite their great wealth and the opening of the Cavendish Laboratory at Cambridge in 1874 (Playfair, 1886; Simpson, 1983). Reform there had proceeded more slowly than anyone could have predicted in the 1850s, and the German university model had been less influential than reformers had hoped. The internal organization of Oxford and Cambridge remained collegiate (rather than faculty) in basis, and continued to be so even after the Royal Commission of 1877. Tuition still met the needs of students in residence, and aimed to produce generalists rather than specialists. Any reform at Oxford owed more to Benjamin Jowett’s ideas of improved undergraduate teaching than it did to Mark Pattison’s vision of a strengthened commitment to scholarly enquiry - though even Pattison was not necessarily thinking of scholarship on the German model (O’Boyle, 1983; Sparrow, 1967). It took fifty years and another Royal Commission (that of 1923) to establish research as a core value of the University.

In London Karl Pearson established the Association for the Promotion of a Professorial University (1893) with the objective of ending the strict separation of roles between the teaching colleges and the examining university. His idea was to create, alongside the latter, a new teaching university modelled on his alma mater the University of Berlin, “with its Ranke, Gneist, De Bois Reymond, Kirchoff, Wattenback, Mommsen,

Curtius, Mullenhoff, Helmholtz, Zapitza, Oldenburgh, Weierstrass, Kiepert, and a dozen or more European names” (Pearson, 1884, p. 430). Yet once again the resulting reform was a compromise, in this case between the English tradition of liberal education (with examinations under the control of a separate central authority) and the German research university (which combined the functions of teaching and examining) (Harte, 1986).

As long as Scottish universities offered an education significantly different from that of Oxford and Cambridge (or the new English civic universities which they had inspired), their adaptation of German ideas would produce different results. By the 1890s, however, their ‘assimilation’ into a British university system was underway. Anderson (1983; Anderson, 1985) sees the 1908-10 reforms as the real watershed, with the abolition of the junior class for weaker students, fewer lectures and more tutorials, more specialisation within the degree, the ending of the requirement to study philosophy for the M.A., and the extension of teaching in the summer term from medicine to the arts classes (the old university year had run from October until Easter). The German-inspired plan for extra-mural teaching by Privatdozenten (any qualified teacher allowed to give courses recognized for graduation), was not adopted. Instead, professors in Scottish universities established departments, giving them control over lecturers as in English civic universities (Anderson, 1995).

By the end of the century Scottish enthusiasm for German universities was being subsumed within a movement to apply German ideas to an emerging ‘British’ university system. The leading advocate of university reform in this period was Richard Burdon Haldane (1856- 1928). His campaign in the House of Commons was largely responsible for the legislation to reform the University of London in 1900. He was also involved (with Sidney and Beatrice Webb) in the establishment of the London School of Economics in 1895, in the movement to found a technological university in London on the model of the Charlottenburg Technische Hochschule, and in the development of English provincial universities. Haldane could be considered the one individual most associated in the public mind with Germany and German culture before 1914. He had begun his studies at the University of Edinburgh at the age of sixteen. On the advice of Blackie, Haldane had gone to Göttingen for a few months in 1874 to study philosophy under R.H. Lotze before returning to complete his degree in 1876. The German experience, though brief, made a profound impression. He often visited Germany in later years, but it was always his university experience to which he returned in his writings and speeches (Haldane, 1928). In 1879 he was called to the English Bar, and in 1885 began his political career as a Liberal M.P. for a Scottish seat, rising rapidly to the front rank of the Liberal Party. He was essentially ‘a non-party politician’, devoted to certain issues regardless of party affiliation, especially the national provision of higher education (Ashby & Anderson, 1974; Koss, 1969) – that is, ‘national’ in the British rather than Scottish sense.

In his numerous addresses to students and other university audiences, Haldane seldom failed to refer to the German contribution in the most glowing terms — whether it was the thoroughness of elementary and secondary schooling, the advantages of student lernfreiheit, or the excellence of university research. In short, what Germany represented for Haldane was “the most remarkable case of organization based on culture” (Haldane, 1902, p. 75) and what Britain lacked was “that large luminous point of view” (pp. 44-5) which he termed Geist. “We want Geist in our educational system” (Haldane 1928, p. 16)

he told an audience of Scottish teachers, “the larger intelligence and culture without which education not only cannot be interesting, but cannot be sufficiently comprehensive to take effect on practical business” (p. 149-50). What Germany also provided was more opportunity for ‘special training’.

The great laboratories are places where every kind of research is carried on, and the student has not the hopeless feeling that he has, say, in Edinburgh or Glasgow, where a single professor gives a stereotyped course of instruction to all the students of chemistry, however various their aims in life.... Why should the four Scottish universities, by their very nature of a popular and accessible type, but in the main, owing to the sluggishness and want of ideas of their governors, of little use from the point of view of the application of science to industry, remain as they are to-day? (Haldane, 1902, pp. 21-2)

Haldane saw this shortage of research facilities as a reason for the relative decline in student enrolments at Scottish universities in the late nineteenth-century, but it also underlined the need for students to travel to Germany for ‘special training’. This had been a point made by the university reform movement of the 1850s and 1860s. For example, in a rectorial address at the University of Aberdeen, Mountstuart E. Grant Duff (1829-1906) had advised “every Scottish student...to spend...some time in Germany, or, in special cases, in France, in the study of his favourite subject” (1867, pp. 35-6). Following Lorimer, Duff proposed the establishment of research fellowships for Scottish graduates, to be used especially at German universities. The holders would return to teach in Scotland after a period of two or five years to inject new blood and the latest ideas into university life. For those unable to travel, learning the German language was an absolute necessity for further study, given the general superiority of German scholarship. Behind this admiration for Germany clearly lay the anxiety that Britain was falling behind in the ‘highest kind of intellectual cultivation’. “In this world of change the intellectual rank of nations, like their material prosperity, never continuith in one stay,” Duff concluded. “A people which relaxes its efforts in any one department soon falls in that particular department behind its neighbours” (pp. 35-6).

Some fifteen years later, James Donaldson (1831-1915), Professor of Humanity at Aberdeen and another long-time admirer of German education, was urging a similar course of action.

What should our students do who wish to pursue their philosophical, their philological, their theological, or their mathematical studies to the highest point? They may go to Germany - indeed they must go to Germany - for the highest theological, philological, philosophical studies, and there they will get the best that the theology, scholarship or philosophy of the age can do for them. (Donaldson, 1883, p. 29)

There was an implicit rebuke to the English university system in this comment: Scottish students were not being advised to go to one of the ancient English universities. One might find similar criticisms by the English of a university system dominated by

Oxford and Cambridge, the same envious glances at the generous provision for research at German universities. However, for the Scots-born professor – and only from the 1880s did it become more common to appoint English scholars to Scottish chairs – there might be an additional grievance. This grievance came from the perception that Scotland was a small nation whose universities were beginning to seem peripheral within a British system. By 1883 this system embraced not only the universities and colleges of England and Wales, but also similar institutions throughout the British Empire. At the top of the ‘pyramid of prestige’ stood Oxford and Cambridge. The Scottish universities, which fifty years earlier had still been quite distinct from English universities, and competitors with them, were becoming part of a more homogenous British system of higher education.

A year earlier Donaldson (1882) had addressed this issue of Scotland’s educational identity in his introductory lecture at Aberdeen.

What part... can we in Scotland take in this great work [university research]? No one can deny that we have contributed our fair share to the production of ideas, but there are some who affirm that we can do nothing, and ought not to attempt to do anything in the department of scholarship. Can they tell us why Scotland should be thus disqualified? Holland rears her own scholars, Belgium rears her own scholars, Denmark rears her own scholars, Switzerland rears her own scholars, and the little kingdom of Greece rears her own scholars. Is Scotland inferior to every one of these kingdoms? (p. 20)

The lecture was full of admiring references to German scholars like Wolf, Niebuhr, Ritschl and Mommsen, with rather fewer British names cited. As a young man in the 1850s, Donaldson had studied in Berlin, and for the rest of his life he remained impressed by German ideals of scholarship and by the systematic organization of schools and universities in Prussia (Anderson, 1992b).

Donaldson’s name can be found on Hollenberg’s (1974) list of ‘English professors’ who had studied in Germany, over a third of whom were in fact Scots. As well as Donaldson, the other Scottish theologians were William Milligan, Sir George Adam Smith, W. P. Paterson, John Tulloch and George Milligan. Together with the classicist John Stuart Blackie, and the historian James Mackinnon, they had all been born in Scotland and had taught in Scottish universities. Sir William Ramsay the chemist, William Robertson Smith the Orientalist, J.G. Robertson the German scholar, William Cunningham the economic historian, and the theologians Archibald Campbell Tait and A.M. Fairbairn, were Scots-born, but spent all or most of their academic careers in England. James Bryce, though an Ulster Scot, might also be included. He was born in Belfast, the grandson of a Scottish divine, and educated at Glasgow High School and the University of Glasgow, before going to Oxford. So could Lyon Playfair, born in India, but educated at St. Andrews and Glasgow as well as at London and Giessen, and the holder of a chair in Chemistry at Edinburgh (1858-68). To these names could be added others not on Hollenberg’s list: the philosophers J.B. Baillie, J.S. McKenzie, Andrew Seth (later Seth Pringle-Pattison), Norman Kemp Smith, and W.R. Sorley, the classicist William Mitchell Ramsay, and the theologian John Oman. The historians Ramsay Muir and R.W. Seton-Watson had strong Scottish connections, though they were not actually

born in Scotland. A significant number of Scottish academic lawyers had also attended German universities (Rodger, 1994).

These were only the most prominent of the many Scots educated at German universities in the nineteenth century. Scottish names appear on German matriculation records from 1419 onwards, but the great period of student migration comes after 1800. This is the case for English students as well, but Scots believed that the flow of their people to German universities in the nineteenth century was the renewal of a distinctively Scottish tradition. Lorimer (1850) noted that:

... down to the middle of the eighteenth century, we meet with few eminent Scotsmen who were not partially educated on the Continent; and it is probable that the generation now at maturity had less intercourse with foreign countries in their youth than any other within the range of our authentic history. During the last thirty years the custom has in some degree revived; and it is productive of so many advantages, both intellectual and social, that we would gladly see it more generally reinstated. So long as even a highly instructed man has not actually seen political relations, social life, civilisation, and refinement, under more than one form, however much he may have heard of the manner in which they exist, some degree of narrowness will invariably belong to his character. (p. 289)

Lorimer's comments were based in large part on personal experience since he himself had studied at the universities of Bonn and Berlin, as well as in Geneva. The first two universities were popular with British students in the nineteenth century, but so too were others in Germany. Between 1835/6 and 1892 there was a five-fold increase in the number of British students at German universities, with a falling-off in numbers after 1905 (Conrad, 1893; Conrad, 1885; Hollenberg, 1974). Matriculation records for individual universities make it possible to determine the proportion of Scottish students within the total. Between 1837 and 1914 the percentage of Scots amongst British and Irish students ranged between 13.8% (19 out of 138) at Freiburg, 13.9% (100 of 718) at Bonn, and 19.2% (44 of 228) at Munich. Freiburg was a small university, but like the other two it had a Catholic theological faculty. Of the three, only Bonn also had a Protestant faculty, which probably explains the larger number of British students there. The proportion of Scots was far higher at two 'Protestant' universities, Göttingen and Heidelberg, suggesting the greater importance of German theology for the Scottish as compared to the Anglican Church. At Heidelberg, like Bonn, a university popular with British and American students, the percentage of Scots amongst U.K. students was 25.6%, (193 of 755); at Göttingen, closely connected to Britain before 1837, the percentage was 53.3% (129 of 242) over a slightly shorter period (1837-1900).

The relatively large number of Scottish students in Germany was probably the result also of those distinctive features of the Scottish university that have been mentioned already: greater accessibility, the lower entry age (allowing the transition from study to employment to be delayed), and the strength of professional education. Overseas study was common for Scots, in medicine "from the very beginning of the nineteenth century" and in theology "from about the 1850s" (Anderson, 1987, p. 41). With about

15% of the population of England and Wales, Scotland in 1861 had four universities with slightly more students (3,399) than the four English universities (Oxford, Cambridge, London, Durham) and Owens College, Manchester (3,385). The ratio of university places to population in Scotland was thus much higher (1.11 per thousand) than in England (0.17), and students represented a higher ratio of the 19 to 23 age group than in Germany and most other European states (Jarausch, 1982). By 1911 the number of English students (now including females) had increased almost eight times, so that it was now three times greater than the number of students at Scottish universities, but the ratio per thousand of population (0.73) was still less than Scotland's (1.63) (Anderson, 1983; Anderson, 1985). Even allowing for the fact that about 20% of the students at universities in Scotland were non-Scottish, the opportunities for higher education were far greater than in England. Eric Ashby (1967) once estimated that "the number of Englishmen" (by which he probably meant Britons) studying in Germany in the nineteenth century was "at least as large" as the total of Americans – some 9,000 (p. 4). On the evidence of our sample, at least a quarter of these were Scots.

The popularity of Göttingen was exceptional. Blackie claimed that it held a special place in Scottish hearts as a place of serious study, something for which he considered young Scots to be better fitted than young Englishmen. In 1869 he wrote of his own arrival there, forty years earlier:

What made my father's advisers fix precisely upon that site of Teutonic learning I do not know, but I have since had reason to note that the choice was in some respects a very wise one. No doubt, natural beauties are more luxuriant at Heidelberg and Bonn but both of these places have the disadvantage of being much frequented by the English; that means not mainly the studious, but the unsettled, lounging, and for various reasons, Continentalising, English, - a dangerous companionship for a certain class of young men, and not particularly desirable for any... Göttingen... though situated in a pleasant neighbourhood, lies too much in a corner to be a convenient centre for an English settlement; and for the young men who wish to take an earnest plunge into Teutonic life, and not merely indulge in a little graceful sipping, is a far more preferable residence... (Blackie, 1910, p. 38)

Blackie went to Göttingen in the summer semester of 1829, applying himself "like a good boy and a very working Scotsman to the study of the German language" (Blackie, 1910, p. 153). In October of that year he transferred to the University of Berlin, where he found "the students...a more scattered body...[with] less of a composite spirit...than in a small academical town" (p. 38-9). There he remained until March 1830, becoming fluent in German (it was later said "he became so much a German that few could take him for a Scotchman" (p. 43-4)), when he travelled to Italy, before returning to Britain in 1831 (Blackie, 1909). As was common for foreign students (and for German students in their first semester), Blackie attended lectures in a variety of subjects, not just in his field of classical studies. He also made important academic contacts which he later took up again when he regularly returned to Germany in the long summer vacations which were the lot of a Scottish university professor in the nineteenth century. He

discovered the convivial side of student life in Germany, though his attempts to introduce this in Scottish universities were not very successful. His *Musa Burschicosa* (1869), a collection of student songs, many of which were set to German airs, evoked little response in the land governed by “the stern enthusiasm of the Covenanter” (Blackie, 1910, p. 194-5). “The Scotch academical youth, for whose use and enjoyment it was directly written, would not buy it” (p. 194-5). German student life did later provide the inspiration for Britain’s first student council. Robert Fitzroy Bell, returning from a summer spent at the University of Strasbourg in 1883, brought with him the model of the *Studenten Ausschuss* on which to base a similar body for student self-policing at Edinburgh. The resulting Students’ Representative Council and Student Union (January 1884) were copied at other Scottish and English universities (Ross, 1937; Anderson, 1983).

By the 1880s Scottish students were beginning to travel to Germany for research, rather than for general cultivation of the mind and improvement of their knowledge of German. This experience of the laboratory or the seminar could prove crucial in forming later views of university education. William Ramsay (1852-1916), for example, had enrolled at Glasgow University in 1866 at the age of fourteen. His education was in the Scottish generalist mould (Latin, Greek, Logic, Mathematics, Natural and Moral Philosophy), but he was able to make the transition to postgraduate scientific research because he had attended chemistry lectures provided for medical students. He also worked part-time in the laboratory of the Glasgow City Analyst. At the age of eighteen and a half, Ramsay travelled to Germany, probably intending, as so many Scots had done before, to stay for the summer semester and to return to Scotland for the start of the winter term. Instead, he remained for almost a year and a half (April 1871 to August 1872), and finally left with a Ph.D. in chemistry from Tübingen. By the 1870s the practice of studying in Germany for a Ph.D. had been common for several decades amongst chemists, though it was still not yet a prerequisite for a scientific career in Britain (Watson, 1994).

Ramsay’s first choice had been to go to Heidelberg to study under R.W. Bunsen, but he was advised that Tübingen (since it was smaller) was less expensive and provided better teaching. Rudolf Fittig, Professor of Chemistry at Tübingen, was a leading university chemist (though not perhaps of the stature of Bunsen) and he ran a well-organized laboratory. There was close supervision from Fittig and his American assistant Ira Remsen, who had worked together for years. Remsen also coached Ramsay and the other foreign students (mostly American) for their examinations. Years later Ramsay returned to his experience of Fittig’s laboratory as he sought to expand research activity at University College, London, where he was Professor of Chemistry from 1887 to 1913. In his address to students on “The Functions of the University” in June 1901, he described the German “Philosophical Faculty,” as directed towards research, “the production of teachers, the equipment of laboratories and libraries, the awarding of degrees,” and compared it favourably with “our carelessness in this respect... which has made us backward compared with some other nations” (Ramsay, 1908. p. 231). This research mission distinguished the German university. Ramsay argued, “It is its chief excuse for existence; a University which does not increase knowledge is no University” (p. 238-42). This was as true of the arts as of the sciences, and he urged also the adoption

of the German ‘seminar’ or ‘literary laboratory’. “The system is borrowed from the wellknown plan of instruction in the physical or chemical laboratory. Experiments are made in literary style. These experiments are subjected to the criticism of the teacher, and thus the investigator is trained...” (p. 238-42).

This idea of the university defined by its research mission can also be found in the writings of other German-trained scientists in Britain, like Sir Henry Roscoe and Henry Armstrong, but for them “the process of research was more important than the resulting facts” (Watson, 1994, p. 303). They did not use the term ‘liberal education’ but, as a recent study suggests “their view was related to that convention, where the benefit derived from original research was firstly to the development of an individual’s character, and secondly to the advancement of chemical knowledge” (p. 259-60). By contrast, Ramsay held a more utilitarian perspective than did many of his more senior colleagues in that he saw the main purpose of the university as a training ground for professional chemists. It may have been more utilitarian, but it also placed Ramsay closer to the German model of specialised university study than the two English scientists, Roscoe and Armstrong. As a member of the Association for Promoting a Professorial University in London, Ramsay was active in obtaining the latest information about German universities from fellow-scientists like Wilhelm Ostwald, Emil Fischer and his old teacher Fittig (Kaufmann & Priebe, 1980; Ramsay, 1903; Watson, 1994). Ramsay’s views were also consistent with his Scottish background. His scepticism about examinations owed much to his own experience of original research as a student under Fittig, and his realisation later of its value as a teaching method, but Ramsay also disliked the separation between examining and teaching in the University of London, a practice alien to Scottish universities.

In many respects this positive view of the German university did not change until the First World War, which was in this (as in so much else) a watershed (Wallace, 1988). One can find published criticisms of the German university before 1914 (Academic Germany, 1895; Alter, 1988; Housman, 1968;), but men like Ramsay, Donaldson, Sadler, Bryce and Haldane remained admirers of its ideals. Significantly, four of them were Scots by birth or descent (Sadler was English). James Bryce had been an admirer of Germany and German universities from the time when, as a newly-elected Fellow of Oriel College Oxford, he first “resolved to pass a semester (summer 1863) studying law under Von Vangerow and perfecting himself in the knowledge of the German language” (Fisher, 1927, p. 58). Fifty years later, his presidential address to the 1913 International Historical Congress referred admiringly to Berlin, “where a great people inspired by noble ideals ‘had’ organized both the higher forms of teaching and every department of learning with unexampled amplitude of plan and unexampled perfection of detail” (Bryce, 1913, p. 11). Bryce had been saying much the same thing for the last half century in Britain and in the United States, where he had been Ambassador for eight years from 1907 to 1913.

The outbreak of war in 1914 came as a terrible blow to these academic Germanophiles. By May 1915, Haldane had been driven from office by a press campaign against his alleged pro-German sympathies. Ramsay left retirement to immerse himself in weapons research, but died in 1916. Bryce took refuge in the view that there was a fundamental division between the militarists and the educated class, between Prussia and the rest of Germany. “There was nothing of this kind in Southern Germany when I knew

it fifty years ago” (Toynbee, 1916, p. 8) he wrote of the forced deportations of Belgian civilians. Bryce was involved in the investigation of alleged German war crimes, and unwittingly in atrocity propaganda, but still found it impossible to admit that there were flaws in the German university system. This reluctance was a matter of age as he was seventy-six in 1914. It may well have been Bryce that John Burnet (1863-1928), Professor of Greek at St. Andrews, had in mind when he criticised the older generation who could not see that Germany had changed

A great deal of misunderstanding arises from the fact that men of a certain age and a certain education fail to realise that it is this nationalist Kultur which is alone familiar to the British public of to-day, and even to the younger generation of educated men, and that it is extremely repugnant to them... To understand their point of view, we must realise that they were born in the nineties of the last century, and that Germany meant something quite different to them than it meant to the men of the Victorian age, when there was still a tradition that Germany stood for philosophy, learning, music and simplicity of life. (Burnet, 1917, p. 19)

Burnet followed this with a revealing anecdote about James Donaldson, now Sir James and Principal of St. Andrews University. For many years he had given an annual address at commencement, often praising German universities. He had known Germany in better days and owed much to German learning, and it was natural that he should often address our students on the excellence of German education. He did not know that, if anything could have destroyed that affectionate regard in which they (the students) held him, it would have been that. In October 1914, he had to address them at the opening of our College, and a voice was heard to murmur reproachfully ‘German education again!’ (Burnet, 1917, pp. 22)

This incident was reminiscent of the way in which Haldane earned a reputation as a parliamentary bore on all things German, and the nickname ‘Schopenhauer’ from his cabinet colleagues. Fortunately, however, Donaldson’s speech turned out to be “a call to service of the country and was received with enthusiasm” (Burnet, 1917, pp. 22) but that student voice was perhaps a sign of how far the attitude of Scottish (and English) students to Germany had changed. “It was many years since any sort of inspiration” had come to them “from over the North Sea” (p. 25) Burnet noted, and his contact with his own students suggested that for the younger generation “the war clearly meant the breakdown of German education” (p. 109). Yet he was reasonably fair-minded by wartime standards, arguing that British education still had “something to learn from Germany, both by way of example and of warning” (p. 71).

Burnet had studied in Geneva and Paris, rather than in Germany, after graduating from Edinburgh. He had studied German education closely, but he was a strong defender of the Scottish tradition of general education based on philosophy. Where Lorimer had been an enthusiast for the Germany that had been created on the battlefield of Sedan, Burnet now viewed with alarm the sight of “ninety-three of Germany’s foremost scholars, theologians and men of science” supporting “Prussian militarism” (Burnet, 1917, p. 2). He wrote, “It would be little use to defeat the Germans in the field if we were to fall under the influence of German *Kultur*, and this danger is nowhere so great as in all

matters connected with education” (p. 2). The *lehrfreiheit* of German scholars whom Bryce, Donaldson, Ramsay, and Sadler had valued so much, now seemed little in evidence.

Conclusion:

The publication of the Manifesto of the Intellectuals of Germany in October 1914 came as a shock to older British scholars. If Burnet was right, the German university was already a less potent force for the younger generation. Even before the restrictions placed on the admission of foreign students in 1913, there had been a falling-off in the number of British students travelling to Germany. The introduction of the Ph.D. as a research degree in Britain from 1917 onwards might be seen as a final stage of ‘Germanisation’ (as opponents of change argued), but it was also a means of competing with German universities for American and colonial students. Scottish universities had established research degrees (D.Phil., D.Lit. and D.Sc.) over twenty years earlier, but these were not particularly successful and they were now replaced by the new Ph.D. for all faculties (Simpson, 1983). Together with the creation in 1919 of a new funding authority for British universities, the University Grants Committee, this change symbolised the way in which Scottish universities were now part of a British higher education system.

The process of grafting German ideas onto the Scottish university (advocated by Lorimer and Blackie) had been highly selective. Neither the system of *Privatdozenten* nor the German research seminar was adopted. In 1914 the roles and status of the professor, lecturer and student in Scotland, in relation to each other and to the university, were not the same as in Germany. They looked more like practice in English provincial universities. The First World War, by breaking scholarly contacts between Scotland and Germany, probably confirmed this tendency. When, in 1926, the *Akademischer Austauschdienst* of Berlin invited British academics to encourage their students to again travel to Germany for study and research, the body established to facilitate this from the British side was given, significantly, the title of the Anglo-German Academic Board.

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