ARISTOTLE AND THE OLIGARCHS: THE PLIGHT OF CONTEMPLATIVE SCHOLARSHIP IN MARKET-DRIVEN UNIVERSITIES

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It is an honour to have been invited to address members of the Federation gathered here today. I welcome, with gratitude, the opportunity to speak to you about what universities should be and do — in short, about the idea of a university. But I intend also to show how much damage has already been inflicted upon universities in Europe and elsewhere, and to beg the Federation to be resolute in fighting against imminent damage from *dirigisme* here in Ireland. This country has a strong tradition of respect for learning for its own sake. It was a land of Saints and Scholars. The sanctity is less manifest these days, but who knows what the religious future may hold? We can all strive to ensure that Ireland remains a land of scholars and scientists, devoted to autonomous study, to the preservation and increase of knowledge, and to the increase of understanding in our pupils and successors. Recently, in a profound discourse at University College Dublin, President Michael D. Higgins insisted that the crisis confronting Ireland is not only economic but also intellectual. At the centre of the intellectual crisis is the idea of a university, now often misunderstood to be principally an instrument of social engineering or an agent for the increase of gross national product. My task today is, with the help of Aristotle, to enquire into the nature of the polity in which we live and the effects of unfettered markets upon the life of the mind. I shall show that the true vision of what a university should be is being obscured or lost, with the consequence that much damage has been done to the quality of civil society. My lecture is a plea for a return to the notion of the pursuit of knowledge for its own sake.

In thinking about universities and their purposes it is proper to pay attention to John Henry Newman. In the fifth discourse of *The Idea of a University* Newman contemplates knowledge for its own sake and insists that "in many matters, to think correctly is to think like Aristotle; and we are his disciples whether we will or no, though we may not know it" (V.5, p. 83; ed. Svaglic). Guided by Aristotle, whose distinction between useful and liberal knowledge forms the basis of the discourse,

Newman insists that "there is a Knowledge which is desirable, though nothing come of it, as being of itself a treasure, and a sufficient remuneration of years of labour" (V.6, p. 86). We are very close here in Newman to the Aristotelian *theōria* of science and scholarship, the contemplative life of the thinker such as leads to the happiness that is in accordance with wisdom. Conversely, we are very far here from the crassly quantitative world of contemporary universities, with their research excellence frameworks, and their teaching quality assessments, and our rulers' monotonous and repetitive calls for value for money from practitioners of subjects beyond price and beyond the constricted perceptions of the idolators of Mammon. It is, alas, no longer invariably true that, in Newman's words in Discourse VI.8 (p. 109), "a University is, according to the usual designation, an Alma Mater, knowing her children one by one, not a foundry, or a mint, or a treadmill".

How has it come to be that, within two generations, universities have tended more and more to resemble treadmills? In Britain in 1963 the Robbins Report emphasized the influence of universities upon the spiritual well-being of nations, and asked that their interests be represented in the highest counsels of government. Now, however, universities in England have been placed under the direction of a Department of Business, and are increasingly subjected to *dirigiste* demands for economic growth and global competitiveness. It is a sign of the times that the University of Leeds recently advertised for a "Director of Exploitation and Commercialisation".

After Robbins, unreasonable expectations were declared by British politicians hoping for palliatives of manifest industrial decline. Mr Harold Wilson, I recall, spoke about the "white heat of a technological revolution"; but academics alone could not provide a panacea for industrial decay, nor should anyone have supposed that they could. Rapid inflation led to the abolition of the University Grants Committee, a body composed of enlightened and responsible scientists and scholars; it had become impossible amidst rising costs to plan more than one year ahead, let alone quinquennially. The replacement bodies became increasingly intrusive; no longer was the UGC there to provide a buffer against political direction and, in accordance with the spirit of the times, commercial interests dominated education policy. Meanwhile the idea of thrift became attenuated: I recall that in the 1970s there was a credit card here in Ireland with the slogan "Access takes the Waiting out of Wanting".

From instant gratification of individuals to Weimar-like quantitative easing, institutional credit swaps, and subprime 100% mortgages two and three decades later was not a long step. Emphasis upon the market — a concept venerated but never clearly defined in the epoch of Friedmanite economics — was often explained by invocation of the name Adam Smith.

Smith's name was repeatedly uttered by spokespersons in think-tanks to whom the notion of public enterprise and shared responsibility, Aristotelian koinōnia, was utterly alien. We may now wonder, however, how many pages of the Scot's voluminous writings the economic dogmatists and their political patrons such as Sir Keith Joseph had read. In *The Theory of Moral Sentiments* Smith emphasizes that to elevate self-interest at the expense of other human qualities is not wise. Again and again he insists upon the merits of qualities beneficial to others; prudence is most useful to the individual, but others will benefit from the individual's generosity, kindness, and public-spiritedness. As Amartya Sen has pointed out, Smith saw that unrestrained greed could not bring about the essential civility of a decent society; he condemned the "prodigals and projectors" who took excessive risks in the pursuit of profit, a projector being defined in his time as "a promoter of bubble companies, a speculator, a cheat". Smith concedes that "Society may subsist among different men, as among different merchants, from a sense of its utility, without any mutual love or affection; and though no man in it should owe any obligation, or be bound in gratitude to any other, it may still be upheld by a mercenary exchange of good offices according to an agreed valuation". Smith says that such a society may subsist; he does not say that it will flourish or prosper or be happy or be virtuous.

We can now turn to an examination of the city-state in Aristotle's *Politics* and its pertinence to our present predicaments. The *Politics* continues the argument of the *Ethics*, morality and political conduct being inseparable in his mind as they should be in ours. (In speaking of morality I claim no moral high ground. I am no better and no wiser than I was when projected into adult life as a conscript of seventeen and a half some sixty-two years ago. However, like Solon, who was wise, I grow old learning many things. Perhaps therefore I have had plenty of opportunities for seeing where things may have gone wrong.) Two possible objections to the application of Aristotle's doctrines concerning the *polis* to the vast polities of the modern world

have to be acknowledged. First, it may be asserted that the very size of modern societies renders discussion of the Greek city-states irrelevant to contemporary political analysis. Aristotle recognized the problem of size: it was one of communication, not of numbers. He asked: "Who can be a general in an excessively populous state? And who can give it orders, unless he has Stentor's voice?" (Stentor in Homer shouted as loudly as fifty men together.) Nowadays communication is much easier — indeed too easy, if one may judge from addiction to mobile telephones in public places and even at the dinner table. Rulers and leaders can speak to us, their subjects, anywhere and everywhere. The problem of communication has, all too intrusively, been solved; but our rulers' power to address us and to intercept our conversations is now in essence oligarchic, not democratic.

A second objection concerns slavery. Aristotle's treatment of slavery is far from satisfactory. He sees that a person free by nature cannot be a natural slave; the individual may for example be a captive in war. But the doctrine of natural slavery cannot but be flawed. He tries to think that slavery must in some instances at least be natural because it was widespread in Greek and ancient society in general; yet he recognizes that nobody should be a slave who does not deserve to be a slave. But by what moral authority can a person be declared to deserve to be a slave? However, let us not be critical of Aristotle in the matter of slavery; instead, let us look at ourselves. We may not speak of slavery much nowadays, but most of us benefit from industrial organizations profiting from servitude. Here, for example, are excerpts from a description of a factory on the Mexican side of the border close to El Paso. Texas:

"A new presence was on the border now; it had gone corporate in a big way. Like magnets, huge *maquilladora* factories lined the border, 'finishing' American products and evading American pollution and labor laws. They attracted young workers, mostly women, from all over Mexico, who moved to the border and lived in sprawling cardboard *colonias* without sanitation, water, or adequate transportation. The turnover was 100 per cent, but central Mexico had wave on wave of workers to send north ... the women worked the factories. ... In 2001, one worker, aged 20, was four minutes late for work at an assembly plant and got shut out. She tried to return home but never made it. She joined the 450 women murdered in Juarez since 1983.

... The indigenous women were modest in the extreme, but to work in the modern culture, they assumed their function was to appear sexy ... there were few models for independent working women who weren't hyperfeminine."

In questions of slavery, let us not point the finger at Aristotle.

When he classifies polities Aristotle thinks of "correct" constitutions. They are three in number: Monarchy, Aristocracy (which he thinks distinct from nobility of birth), and moderated Democracy (also called by him *Politeia*). There are also three deviations: from Aristocracy, Oligarchy; from Monarchy, Tyranny; from *Politeia*, radical Democracy. The difference is greatest between Monarchy and its deviation Tyranny. Smaller is the difference between Aristocracy and Oligarchy. Still smaller is the difference of *Politeia* from Democracy. In a true aristocracy persons of moral and political merit have the most power, because they possess aretē "moral goodness". In a politeia middling citizens bring political stability because they can intercede between rich and poor. In a radical democracy the poor have most power. In an oligarchy power belongs to the rich. A second analysis, one much heeded by Marxists, opposes the rich to the poor. If the constitution favours the rich, then it is an oligarchy. Exponents of the class struggle, however, tend to pay less attention to Aristotle's recommendations concerning the stability maintained by the middling element in a polis.

If we now turn to contemporary political arrangements we see that there are elections; but that does not make them, in Aristotelian terms, democratic or even moderately democratic. Turnouts tend to be low; and the huge cost of being elected, for example to the Presidency of the United States, is a distinctly oligarchic feature: rich individuals and corporate donations contribute, often decisively, to the outcome of electoral campaigns. One consequence is the shifting of power away from elected representatives to persons of economic power. In Europe generally the growth of oligarchy (that is, for Aristotle, the exercise of sectional power by the rich) is now conspicuous. Here are examples, some well known, others less so. We are aware that large bonuses are being paid to bankers whose banks have been bailed out by the taxpayer. Politicians of all parties have shown themselves incapable of stopping the abuse. Again, directors of a British not-for-dividend company — limited

by guarantee but reputedly in the private sector, though its shareholders are politically nominated — paid themselves large bonuses at the expense of the taxpayer. Pleas to the magnates of the company from a Secretary of State (himself a very rich man) for "sensitivity" were ignored. Sensitivity has been rare also in the Irish polity: by the end of 2005 the then Taoiseach had received five increases of pay in six months. Again in Ireland, three months before the St Patrick's Day massacre of 2008 a consultant brought in by Anglo-Irish Bank reported upon the composition of the bank's directorate. A few changes were recommended, but the overall estimate was highly favourable. The board was deemed "good to great" and, it was said, "consisted of high-calibre individuals providing effective leadership". At the time the bank was known to be in difficulties, and its collapse led to the insolvency of the Irish Republic. Who was the consultant so firmly established in the arrangements? The answer is the wife of the present British Foreign Secretary. Other examples of the oligarchic linkage of politics and capital can be cited. Distrust of the Blair government began early, with concessions over tobacco advertising made to the opulent — and New Labour-supporting — Bernard Ecclestone. Distrust increased, in the antecedents to the second Iraq war, over nuclear cake from Niger, over the alleged possession of weapons of mass destruction and of their ballistic capability, over the legality of the war itself, over the refusal to hold a coroner's enquiry into the strange death of Dr David Kelly. Distrust grew into contempt by the time of the scandal over MPs' expenses. It is not surprising that Lord Mandelson had asserted, crudely and oxymoronically, "we are intensely relaxed about people being filthy rich". Not even Charles Haughey at his most arrogant would have dared to utter such words in public. His Lordship can truthfully be said to be acting still according to oligarchic form: he has, I understand, been helping to secure rights to mine bauxite from the autocrat of Guinea-Bissau. One may compare the rapid transformation of Mr Blair's sofa government at 10 Downing Street into Tony Blair Associates at Eaton Square, where activities are helpfully supported by a £2 million-per-annum retainer from J.P. Morgan; the number of visits by Mr Blair to Colonel Gaddafi is not known, but it was more than five. There was an attempt to fix an aluminium deal on behalf of the Russian oligarch Mr Oleg Deripaska. No wonder Lord Mandelson is interested Oil is not likely to have been excluded from the agenda, since in bauxite. negotiations by an Irish international oligarch, Mr Peter Sutherland, with the Colonel about concessions for BP were ongoing at the time. Mr Sutherland was responsible

for academic honours being given to a son of the Colonel at the London School of Economics. Thus academic institutions are not only required nowadays to do obeisance to the oligarchs of the market: they are, if need be, required to be humiliated by them. Meanwhile Goldman Sachs International — of which Mr Sutherland has been Chairman — has, not without lavish hospitality, persuaded a head of the British Revenue to let the firm off a large sum of overdue interest. Oligarchs assuredly look after their colleagues within the nexus of the political class. Yet ministers have barely begun to wring their hands.

The mention of British Petroleum takes us to Lord Browne, at one time a high functionary of the company. In October 2010 his Lordship — who is, alas, a Cambridge graduate — and his colleagues produced a review entitled Securing a Sustainable Future for Higher Education. ("Sustainable", we may note, is a buzz word now almost devoid of meaning.) Members of the seven-person committee included not one individual engaged in teaching at a university. (Here in Ireland, by the way, the dearth of university teachers in the Higher Education Authority is conspicuous.) Much protest has been directed against the Browne committee's proposal to cut almost all public funding of teaching and also block-grants, so that universities will have to replace lost income by charging higher fees. The House of Commons on 9th December 2010 voted to remove public funding from teaching and to triple undergraduate fees. It is typical of the oligarchic character of contemporary Britain that no party had included an increase in fees in its election manifesto. When students are "consumers" then they can demand value for their money. If they are not awarded degrees they think they deserve, they can complain — and to whom will they complain if not to the political class? The new system is clearly designed to bring the universities into subjection. What they teach and how they teach it will be at the command of Westminster and Whitehall, and of the Treasury in particular. Consider the following exchange between the novelist Mr Salman Rushdie and the present Prime Minister:

Rushdie: "The deep and disproportionately large cuts in the teaching budgets of the arts and humanities departments of British universities have been described by many commentators as evidence of this government's philistinism. Are you not concerned that you are crippling university education in the United Kingdom?"

Cameron: "I completely disagree. What we're doing is making sure that universities will be properly funded. What's going to happen is the success of universities, and different courses will depend on the choices that students make. Once students are paying the bills, they will be keener on really good courses, really good lecturers, really good materials. So universities will have to respond to that demand, and we'll see a strengthening of our university sector."

Mr Cameron does not answer the question. The response is diversionary and illogical. There is no mention of Arts and Humanities, and students are to decide what they should be taught because, as payers, they know better than their instructor what is good for themselves. The Prime Minister's words may be worthy of a former member of Carlton Communications, but what kind of morality can have been expounded to him by the philosophy dons in Brasenose College, Oxford? And does Mr Cameron know how many students who chose Business Studies are now stacking shelves for Tesco?

The damage to science and scholarship in treadmill universities will be, and in some places long has been, permanent. There will be no *theōria*. The treadmills have been installed, and the managers of the mills have taken over. Having seen what was coming — little wisdom was needed — I retired myself from the United Kingdom's university system twenty-eight years ago. In future, access to funds will be determined in advance by what is called impact. "Impact" is not explained, but the contexts in which it is now used show the concept to be totally alien to the pursuit of knowledge and understanding in the humanities and sciences. If economic or social usefulness is meant, then let us remember that the spillage from a BP oil platform in the Gulf of Mexico had a disastrously negative economic and social impact.

It is not always appreciated how much damage has already been done to Higher Education in Britain — and how much can be done here, notably by economic dogmatism in the Higher Education Authority. Consider one institution in the Russell Group. As a member of the group the university is proudly claiming to be a leading British university in what is advertised, with increasing stridency, to be a globally

outstanding system. Under three successive Vice-Chancellors the following subjects have been eliminated, thus ensuring that the institution can no longer be seriously regarded as a university in any traditional meaning of the word: Hebrew, Greek, Latin, German, Italian, Russian, History of Art; a fine department of Geology has also been suppressed. The chief perpetrators of these offences against the Muses have all been knighted — such is the power of Philistia, and so great is the contempt of the British establishment for the principles of civility. The annual salaries of the perpetrators are more than a quarter of a million pounds, not counting perquisites. (One has to ask, however, at a time when Scottish nationalism threatens dismemberment of the United Kingdom, why so many rational citizens are still eager to be horseless knights of the Order of a long vanished British Empire.) Managers in the university have boasted of getting rid of activities no longer deemed useful or cost-effective; but all the subjects named are less expensive than other, favoured courses. As for courses in management, they are aimed at training swivel-eyed, sharply suited individuals to utter the buzz words of business dogmatists. Such downsizers (to use a typical instance of euphemistic jargon) would learn what a Faustian bargain is — if there were a German department still; or they might be aware of what the Muses did to Thamyris — if there were still Hellenists to expound the *Iliad*. Attempts to quantify the Humanities betray a lack of educated civility, what Aristotle called paideia. It is, says Aristotle in the Nicomachean Ethics, necessary to look for accuracy in each subject to the appropriate degree that the nature of the matter allows. Probable reasoning is no more acceptable from a mathematician than logical proofs are to be demanded from an orator. Each individual judges well that which he knows, and is a good judge of those things. In British government from top to bottom, and not only in Britain, attempts at quantification, grading, testing prevail, because they are seen as techniques of control. One deplorable consequence is that researchers are no longer trusted to search for knowledge; the research councils instead direct them into subjects suited to policies prescribed from above. The consequences for original thought in both the Sciences and what is left of the Humanities are debilitating. Top-down prescriptions may seem attractively neat to bureaucrats, such as functionaries in the Irish HEA, but they can paralyse originality and insight, Aristotelian theōria. It is clear that Science Foundation Ireland has no respect for theōria; it lately put a stop to all funding of research in pure mathematics.

Amidst all the talk of value for money, it is comforting to look at examples of *theōria* such as would be recognizable by Aristotle. At the beginning of the *Metaphysics* he shows how humans desire to know, and are driven by the beauties of nature to wonder at the world. So, recognizing their ignorance, they search for knowledge. Explanation comes first from myth making, and in some senses, Aristotle says, the lover of myth is a philosopher, a lover of wisdom (982b18). Physical explanations began with the search for primary entities (and so they continue at CERN and elsewhere), Thales having been the first of physicists in his supposing water to be primary (983b21). Aristotle himself had the sense of wonder when, for example, he studied sea-urchins in the lagoon at Pyrrha in Lesbos. His patron at the time was Hermias the ruler of Atarneus. Hermias, being a person of civility, made no attempt to engage in beancounting of work in Lesbos, or indeed to impose teaching assessments in the lecture room in Skepsis. Aristotle and his friends were trusted to study topics for their own sake. Likewise in our own time should scholars and scientists be trusted.

I thought of Aristotle at Pyrrha in the course of reading a marvellous book by Richard Fortey, *Survivors: The Animals and Plants that Time has Left Behind* (London, 2011). This is a beautifully written study of living creatures who have endured with little change from remote geological time. The earliest horseshoe crabs (*Limulus Polyphemus*) were contemporary with the trilobites, and the trilobites became extinct some 260 million years ago. Fortey, guided by American colleagues, went to the coast of Delaware late one May to witness the swarming of the crabs. In an inspired passage Fortey describes what he saw and thought in the darkness of the Bay:

"Limulus and its relatives take us back to the far, far distant days when the land surface was barren of larger organisms. In the darkness along Delaware Bay the scratching percussion of the crabs provides an unmusical accompaniment of an imaginary journey backwards in time: to an era ... when the land was stark and life was cradled in the sea; a time when a myriad trilobites scuttled in the mud alongside the forebears of the horseshoe crabs. The trundling, heaving, inelegant not-so-crabs along Delaware Bay are messengers from deep geological time."

Here indeed is Aristotelian wonder. Study of the crabs may bring environmental guidance to the fishing industry of Delaware Bay, but that was not the purpose of Fortey's *theōria*.

Wonder has also been present in the mathematical physics of recent times. It is a striking instance of *theōria* when by means of equations a natural philosopher is able to suggest or to predict the existence of elementary entities. Such a discovery was P.A.M. Dirac's mathematical revelation in 1927 of the existence of anti-matter during his search for an equation describing the electron. The equation, once found, entailed the existence of a particle with the same mass and opposite charge. The existence was demonstrated five years later in the United States by Carl Anderson, who discovered the positron.

The sense of wonder is significant in education. We are in danger of driving it out by constant testing and grading from nursery school onwards. (It is said that performances in nursery sandpits are now subject to assessment.) Wonder is also present in the Humanities, though again the Aristotelian joy in knowledge (*epistēmē*) for its own sake is likewise being diminished by the power-hungry operators of treadmills. There are no Nobel prizes for stratigraphical interpretation, ceramic typology, historical explanation, philosophical analysis, chronological synchronisms, textual criticism, literary judgement. But the intellectual pleasure of sitting down to work, such as Aristotle described in his *Protrepticus*, is as lively in the Humanities as it is in the Sciences. Rarely do the Muses smile; but when they do, the delight can be intense.

Consider the extraordinary problems presented by early Irish texts. The study of them deters all but the intellectually stalwart. Yet such scholarship must be fostered because it is vital to the historical perceptions of Irishness. The erosion of Early Irish studies in language and literature is deplorable: it should be a cause of national lamentation. In Greek or Latin textual criticism, analogously, there is no mathematical guidance and we lack literary autographs of Classical authors. Admission of doubt, the *ars nesciendi*, must always be present to the mind, but where a text is corrupt there is no merit in printing it as though it were sound. It is foolish to be opposed to all conjectural criticism on principle. Conjectures may be

refuted, but they can enhance understanding of disputed passages. Such understanding adds nothing to GNP, but it is essential to the life of the mind in its searching for facts (it was, I think, Maynard Keynes who remarked that comment is free but facts are sacred). A minute fact may be an addition to civility, to the life of Aristotelian *paideia*, but there is no connexion with "impact", or national solvency, or competitiveness. Those who strive to live the theoretic life have other things to think about. On the other hand, those academicians in the Humanities who have fostered the delusion that their activities bring, first and foremost, quantifiable economic benefits have betrayed their calling, even if they have gathered political honours on the way. They have yielded to what in some European universities is now called *productivisme et arrivisme*.

Aristotle's God contemplates himself, but it is not possible for us continuously to engage in *theōria*. When, however, we devote ourselves to *theōria*, says Aristotle, our activity expresses what is god-like in us; to my mind such contemplation, for example in a library or a Museum or a laboratory — that is to say, in a shrine of the Muses — is not far distant from prayer. It must be, in some degree, a godly activity, and it brings the purest happiness, as Aristotle says in the *Ethics* (NE 1177a17). There is too little room allowed to religious contemplation in the life of the mind these days; the increasing exclusion of divinity from the syllabus at all levels of education is intensely worrying. There has been, as Rabbi Jonathan Sacks in *The Great Partnership* has pointed out, "an alarming erosion of religious liberties in recent years. The Attorney General of Massachusetts forced the Catholic Charities of Boston to close their adoption services because of their principled objection to same-sex adoptions." The Rabbi laments:

"In Britain, also, an airport worker was forbidden to wear a crucifix in public, a teacher was dismissed for talking to a sick pupil about prayer, and an officer of the Royal Society was forced to resign for suggesting that teachers, if asked, should be prepared to discuss the idea of creation."

It is clear that the Royal Society should bear in mind the words — quoted by the Rabbi — of a Fellow of the Society, Abdus Salam, spoken when he received in 1979 a Nobel Prize for his part in devising the Standard Model of particle physics:

"The Holy Prophet of Islam emphasized that the quest for knowledge and sciences is obligatory upon every Muslim, man and woman. He enjoined his followers to seek knowledge even if they had to travel to China in its search. Here clearly he had scientific rather than religious knowledge in mind, as well as an emphasis on the internationalism of the scientific quest."

We are not far in these words from the spirit of Anaxagoras, who is quoted with approval by Aristotle in the Eudemian Ethics: in reply to the question for what reason one should choose to be rather than not to be, he replied "to contemplate the heaven and the order inherent in the whole world". When we contemplate the sum of things, tade panta, we have also to ask how they came to be. So it was that Kepler wrote to a friend that through his effort God was being celebrated in astronomy. So also was Newton impelled to add the Scholium Generale to the second edition of the *Principia*. So again may we think about the discovery of the microwave background by Robert Wilson and Arno Penzias at Bell Laboratories in 1964; is it not wondrous that we have been enabled to sense in the microwaves an electrical resonance of the Big Bang? And we may take delight in complementing, not contradicting, evolutionary biology in the study of mathematical beauty in things animate and inanimate. Consider the arms of the marvellous Cartwheel galaxy revealed by photographs taken by means of the Hubble Space Telescope. Or consider the mathematical beauty of the Nautilus shells, the spiral dwelling places of creatures whose pedigree can be traced back to the top of the Cambrian some five hundred million years ago. No great power of intellect is required to contemplate the thought: since mathematical concepts partake of the eternal, is not the Creator also a Geometer? Here I am reminded of words uttered by Dirac in his early sixties:

"It seems to be one of the fundamental features of nature that the fundamental physical laws are described in terms of a mathematical theory of great beauty and power, needing quite a high standard of mathematics for one to understand it. You may wonder: Why is nature constructed along these lines? One can only answer that our present knowledge seems to show that nature is so constructed. We simply have to accept it. One could perhaps describe the situation by saying that God is a mathematician of a very high order, and He used very advanced mathematics in

constructing the universe. Our feeble attempts at mathematics enable us to understand a bit of the universe, and as we proceed to develop higher and higher mathematics we can hope to understand the universe better."

In many universities the most brutal attacks have been directed against small departments. Yet the British Prime Minister presumes to assert that students are being given greater choice. In the distorting logic of managerialism, "small" entails worthless, because not cost-effective. But worth is not cost, and the merit of a subject cannot be estimated according to the number of persons studying it or to the number of items appearing in annual bibliographies. In a letter to Alexander, Aristotle urged the king to be a benefactor of cities both large and small: "the gods are equal for both large and small and so, since the Graces are goddesses, their gratitude towards you will be equal on behalf of cities both great and small" (F.656 Rose). In the market economy of capital and management, and their dependants in Kildare Street and on the North Wall, grace is not the most obvious quality to be discerned. A British cabinet minister, educated at Cambridge, spoke with contempt of medieval studies; but would not, for example, learning about the co-existence (the convivencia) of the three Abrahamic religions in medieval Iberia be helpful in the search for easing of religious tensions in contemporary European cities? The same minister asked a student of Turkic central Asian philology why he was not doing something useful. Given the strong sense of historical tradition among Kazaks, Uzbeks, Turkmens, Kirghyz, the question was not only graceless but also stupid. We have come a long way downhill from Newman's remark in his eighth discourse (10): "... it is almost a definition of a gentleman to say he is one who never inflicts pain". In the ideology of unregulated competitiveness there are always losers; and many of the losers suffer pain, material and mental. The banker at Barclays who declared that the time for remorse was over was doubly mistaken, first because he had yet to show remorse and secondly because he was content to perpetuate the scandal of huge bonuses.

What then is the future of universities? Agents of government such as the HEA in Ireland will persist in the misconception that universities are semi-state entities. The institutions that are well capitalized will survive, though in diminished capacity. Standards will be hard to maintain. At Oxford recently a college at the top of the

Norrington tables reported that more than half its candidates in Finals were awarded first-class honours. That is a proportion inconceivable half a century ago. I have been told, in explanation, that undergraduates work harder now. My principal memory of my ablest contemporaries was of their working very hard; I tried to work hard, but the thought remains that I was fortunate to obtain the class I was given. Nor is Oxford unique: at St Andrews in 1970 one quarter of students received Firsts and Upper Seconds. In 2010, 82 per cent of students did. It cannot be that, in two generations, evolution has caused all students to be more than twice as intelligent. It is significant that visiting examiners from Britain have sometimes asserted that Irish examiners are too severe (long live Irish severity, say I).

Some universities, because they will lose their block-grants, will be bankrupted, and the unwillingness of potential students to become debtors through increased fees will hasten the process (the possibility of closing some British universities had been considered, not without relish, by Sir Keith Joseph three decades ago). Some former polytechnics will become polytechnics again, an honourable state from which they should not have departed; let us bear their fate in mind when debating the future of Irish Institutes of Technology. It is a strange feature of modern governance that changing the name is assumed to change the quality of something. After the nuclear accident in 1957 in Cumberland, Windscale suddenly became Sellafield — and the pollution and radiation at the site rapidly became a non-event (though not for Ireland). Similarly, there is constant managerial talk of excellence in universities and in industry — in England, Research Assessment Exercises have become Research Excellence Frameworks — but to boast is not to be excellent; and those scholars and scientists who, lacking tenure, nowadays are easy targets for downsizing know that all

too often repetition of the word "excellence" is deceitful, but they dare not say so. I beg the Federation to fight hard to save tenure in all Irish universities.

What then are the prospects for *theōria*? Top-down prescription of targets and subjects will not be a guarantee of originality and insight. In an enduring recession it will become increasingly difficult to pay for scientific research. Long before the collapse of the markets in 2008 there were warnings about costs of fundamental research. A striking example is to be seen at Waxahachie in Texas. There,

seventeen holes in the ground are air shafts leading to fourteen miles of abandoned tunnel — all that is left of Desertron, a superconducting supercollider from which the United States Congress withdrew funds in October 1993 after \$2 billion had already been spent. The estimated total cost of the rival to the Large Hadron Collider at CERN was deemed to be excessive. In these islands competition for funds has already done much to weaken the friendships that should exist between colleagues engaged in the quest for truth. Demands for research papers may weaken yet more the quality of lecturing. Some of the best new ideas I have heard in lectures were not put into print until years afterwards; but oral publication is beyond the comprehension of the quantifying assessors. Socrates would not be given a post in a European university these days.

Yet there is hope. Newton's fundamental thoughts about gravitation came to him when he was at Woolsthorpe, away from Cambridge in the plague year. Mendel found numerical principles of genetics when studying beans in his Moravian monastery. When Einstein published the Special Theory he was working in the patent office at Bern. Ramanujan took a lowly paid job in Madras port because it gave him leisure to pursue pure mathematics; his leisure was Aristotelian *scholē*. When Michael Ventris found Greek in Linear B he was not working in a university. Darwin, after his travels, contemplated and wrote at Downe. Our own William Rowan Hamilton had his insight into quaternions when walking from Dunsink, near Broombridge. Let us hope then that *theōria* will be able to escape from the tyranny of managerialism.

For leisure to engage in contemplation, individuals and institutions need what Aristotle called *autarkeia*, self-sufficiency. Institutions of learning, in order to escape *dirigisme*, have to be adequately capitalized. Finding moneys for general purposes by securing capital and income is, however, a most difficult task for the searcher after benefactions, especially in an era of economic turmoil. But generosity there is: it is part of the friendly *koinōnia* that holds society together. Consider the magnanimity of Chuck Feeney, for example. In an Aristotelian perspective we may compare the ancient *koinōnia* of *phratriai* and *thiasoi*; Aristotle saw such gatherings as essential components of a serenely functioning *polis*. The most significant component, however, was the communal friendship of husband, wife, and the other

members of the household. Most modern households differ from the patriarchal, slave-owning households of the ancients, but the familial household remains an essential part of a serene society. Since the 'sixties our political arrangements have emphasized individualism, and much happiness has been brought about by greater personal freedoms. But, Aristotle points out, the individual is azyx; he or she resembles a loose piece on a draughts board. In recent years it has been more difficult, as family and matrimonial or domestic ties become weaker, to maintain a society that is both stable and serene. These are problems for which there has been a failure to find palliatives. Mr David Cameron, or his speech writers, praised an illdefined "Big" Society; but after last summer's riots he was impelled to talk about a "broken" or "sick" society. An Aristotelian student of the familial household could well ask how many of the young rioters came from orderly households. Aristotle rightly noted that in the reproductive arrangements of Plato's Republic love of children would become watery because there were no determinate fathers and mothers. I am reminded of an expression used in the United States, "divorce orphans"; it is applied to children shuttling, often over long distances, between two households, and recognizing that neither is a home. Rootless children can become disturbed children. They may then be tempted into communal violence; into what Aristotle calls tarachē, a tumult to be distinguished from stasis because it is not necessarily motivated by political aims. We may see more tarachē in future, and more barely teachable undergraduates. The non-violent campers of the Occupy movement outside St Paul's Cathedral in London had no clearly stated aims, but it was obvious that they disliked the excesses of deregulated capitalism. With greater disruption, the prospects for contemplative science and scholarship will not be good. The chief hope of contemplators and teachers will be the fostering of *philia* in our private study and in our sharing of ideas with colleagues and pupils and in our responsibilities as citizens.

There is too little time for contemplation in our world of instant profit and loss, instant communication, instant command and control, instant rebuttal, instant sound-bites. Let us heed Dante who in *Inferno* (4.131) saw the master of those who know seated in the midst of the philosophical family. In *II convivio* the poet compares the Aristotelian practical and contemplative lives with the story of Martha and Mary in St Luke (10:38–42). Martha was cumbered about with much serving. She asked Jesus

to bid Mary her sister, who was sitting at his feet, to help her; but Jesus in answer said "Martha, Martha, thou art careful and troubled about many things. But one thing is needful: and Mary hath chosen that good part, which shall not be taken away from her." Our universities used to allow students and scholars and scientists always to choose the good part; but the times for contemplation are rarer now. It may become necessary to reinvent traditional universities; the task will be long and costly, but the blessings — moral, mental, spiritual — will be beyond price.

ⁱ Linda Grant Niemann, <i>Railroad Noir: The American West at the End of the Twentieth Century</i> (Bloomington, 201 pp. 53–54.	0),