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VOL. V,

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LONDON:

KEGAN PAUL, TRENCH, TRÜBNER & CO., LTD.

1891.

THE RELATIONS OF PROFESSIONAL TO
LIBERAL KNOWLEDGE.

[Delivered at UNIVERSITY COLLEGE, October 12th, 1859.]

PROFESSIONS rise with the division of labour, whether the labour be mental or manual. In the great organized monarchies of the oldest time,—in Egypt, India, and China, the separation of professions was established most sharply; but how far they simultaneously aimed at liberal culture, we cannot say; or at least concerning India, I must look to a learned colleague for information. Aristocracies, no doubt, everywhere aim at *refinement*, which is perhaps the essence of that which we call Liberal Art,—the *Artes Humaniores*: and in a less advanced people the refinement aimed at is that of bodily grace and courtly manners, rather than accomplishments properly intellectual. The Persians of the great Cyrus, as the aristocracy of their empire, are said to have placed noble education in learning to ride, to draw the bow, and to speak truth. The Lacedæmonians placed it in attaining grace in wrestling and skill in all martial exercises. To speak generally, Aristotle defines "Aristocracy" as that form of government in which the *educated* bear rule; and we know that the education of Greek aristocracies was that of the public palæstra. It does not appear that they incorporated into their idea of gentlemanly refinement anything more severely intellectual than simple music, with singing of poetry and dancing; and according to Polybius the neglect of these softening accomplishments precipitated one small people of Arcadia into horrible atrocity. I suppose that the old Athenian phrase, *οἱ καλοκαγαθοὶ* (the fine gentry), may be freely translated into the Latin of a certain Oxford Foundation Statute, *bene nati, bene vestiti, modice docti in arte musicâ*. But, as far as I am aware, the systematic attempt at properly *intellectual* cultivation, which should be liberal, as distinguished from professional, began with that miscellaneous body of accomplished men, whom the Greeks called *Sophists*; and it is probable that democratic institutions gave the immediate impulse to their activity. Whatever introduces a

large number of citizens into political importance, generates a demand for very miscellaneous information and very various powers of mind. There is no Jack-of-all-trades so versatile as a statesman, especially in a young and growing community; pre-eminently if, as Athens, and afterwards Rome, it is gaining imperial authority. A statesman needs that which is strictly called *capacity*, or the power of taking in much and quickly. He needs a strong and broad grasp of every question that he touches. Profound knowledge in any one science is superfluous to him; but he must know enough of each to be able to use wisely the skill of other men, to receive their information intelligently, appreciate their relative abilities, selecting and digesting for practical use so much as the public exigency requires or admits. In a democratic state some power of exposition is also necessary; and young Athenians, who were ambitious of political leadership, aspired to be eloquent on any and every subject. The teachers who undertook to assist them in gaining the much coveted power of fluent speech, were of course aware that their instruction was very superficial; but this was unavoidable. Political History had scarcely begun to exist. Force ruled without disguise in every known empire. Politics, as the science of the organization of states, founded upon the associative instinct in man and on the internal relations of society, was perhaps first imagined by Aristotle. Political Economy was at least as superficial with Aristotle himself as with the most flippant of the Sophists. Jurisprudence had no professors, though all the materials of it probably existed from the great activity of the law-courts. Morality, as a science, was quite in chaos. The Sophists (as we call them, though the collective term, as Mr. Grote has usefully warned us, is one of convenience only) probably understood as well as Plato, that the liberal culture at which they ought to aim was a harmonious development of the whole mind; and they did aim at this, according to their abilities, though with most imperfect aids. The gymnastic exercises of the Greeks which promoted a noble development of the body, bore an analogy to the cultivation of the *mind*, too obvious to be overlooked. It was observed that professional runners and dancers were strong in the legs, but disproportionately so, being too feeble in the arms; professional pugilists were powerful in the arms, and deficient in the legs. A skilful wrestling and fencing master would secure that each part had its commensurate exertion, so as to attain symmetry; in which was found alike beauty and service for war. So, for the functions of society, whether in the

strictly political arena, or in social and neighbourly co-operation, we need well balanced faculties (on which Good Sense seems to depend),—miscellaneous information, which of course is everywhere superficial,—delicate sensibility, which will wound no one needlessly or unawares,—and an expansive mind, open to learn from every side, and ready to impart. Aristotle everywhere, I believe, shews a very clear discrimination of Professional from Liberal cultivation. As one instance, in speaking of music, he says, that it should be practised up to the point which will develop the feeling for good music, but not so far as to attain professional skill, which (says he) is vulgar. In short, while professional knowledge consists in the deepening, sharpening, and completing the study of *one* subject or *one* branch of thought, and generally for *immediate* practical ends, liberal knowledge is first conceived of as the culture of *all* the faculties proportionably by very various exercise, and by the supply of very miscellaneous material, for *indirect* and *unforeseen* practical ends, the mind itself being more thought of than any outward result.

It would be out of place here to dilate on the causes which made Athenian greatness transitory, and Athenian eloquence the art of plausibility. Neither Socrates nor Plato, however desirous of deepening liberal study, could effect it, while the special sciences themselves, and especially Political Morality, were in so crude a state. It is probable that Socrates wished all political power to be confined to those who had been trained to statesmanship; which he conceived of as a specific art, like that of a pilot or a shipbuilder; and Plato deliberately desired that the state should be despotically governed by an oligarchy of permanent functionaries. But political speculation could not become comprehensively human by disdaining experience: and by committing himself to write an elaborate scheme on a Utopian Republic, this most celebrated of philosophers gave to the Sophists a splendid revenge for his attacks on them.

Two centuries—three centuries past, and Rome in her turn demanded liberal culture, and looked to Greece to supply it. Eloquence at the bar, in the senate, and before the people, was still the desideratum, as at Athens; but many things combined to give Roman accomplishment a more manly cast: indeed the Athenian was now stigmatized by the diminutive term *homo Græculus*, even when profoundly learned. The young Roman had to begin by acquiring the Greek language, a process which we know to be of great value to the mind itself, especially to those acute intellects which delight in reasoning for reasoning's

sake, and are bold to pursue principles into all their consequences. Such minds are liable to be entangled by the subtlety of language, unless forced to study every imperfection of the tool with which they work. No national mind open to our study was perhaps more acute than that of Athenian Greece, yet none was more egregiously guilty of verbal controversy; from a large part of which they might, I think, have been saved, if Greece had not too much disdained barbarians to make the learning of any foreign language a part of elementary education.

But in truth, there were besides plentiful reasons which saved the young Roman from the mental dangers of the young Athenians, whom Socrates accosted. At home he inherited traditional systems which forced all his energies to work under pressure, and forbade flighty and fanciful schemes of thought. Politics with him was not indeed a *science*, but it was an hereditary *art*, the rules of which were so transmitted in the senate, by the study of the *mos majorum*, that every possible political problem was presented to him with very narrow practical limits. At the same time Roman jurisprudence, pursued continuously for several centuries by a succession of acute minds, furnished a mass of raw materials for science which in many parts had crystallized into coherent order. Eloquence at Rome was not addressed prevailingly to the ignorant and to the young, who always had the majority of votes at Athens. The senate and the high juries were men of noble rank, of middle age and upwards, and contained the most accomplished men of the nation. The popular assembly generally listened with most deference to the speakers who were highly esteemed in senatorial circles. At the same time, in the three centuries between the days of Pericles and the Gracchi, great accessions had been made to literature and science. Not only had Thucydides written Political History, and Aristotle amassed political information; but Athens, Sparta, Thebes, Macedon had risen and fallen. The great Persian empire and the military dynasties which succeeded it, equally with the astute and violent tyrannies of Sicily, had run their course, and had instructively shown the self-ruin of dynastic injustice. A diligent Greek literature had registered all the facts in detail; and even the native Phœnician histories had been translated. Carthage had left to Rome the lesson, not to risk national existence on armies of foreign mercenaries. To Cicero, Politics was a study based on multifarious experience, and pervaded by the deepest moral analogies. So also Morals itself, in the hands of the successors of Socrates, had attained, as *science*, a stability which will never

be surpassed. Acute metaphysicians, then as now, disputed concerning certain foundations of moral thought, as indeed they do concerning the axioms of Geometry; but the reality of Duty was not seriously impugned by the most sceptical of the Academicians; and the two great schools of Zeno and of Aristotle had worked out a scheme of human morality in all main points agreeable to one another and to that which we now recognize as right and obligatory. It was impossible for a Roman to follow Aristotle on the weakest side of his moral system,—that of denying barbarians to have the rights of men; for the Roman was himself one of these barbarians. Altogether, whatever the violence of Roman political dealing, scientific morals became more comprehensively *human*, and thus more humane, in Cicero than in Aristotle. In more abstract science, the Stoics had elaborated Grammar, which had no existence in the days of Pericles. To all modern students of Greek the abrupt change of style from Sophocles and Thucydides to Euripides and Xenophon shows strikingly how quickly the practical lessons of the “Sophists” cleared the muddy stream of Attic composition. But even to Aristotle grammar was at most an Art. Whether the Stoical cultivation of it as a Science was of any benefit to Greece, I am not competent to say: but I presume that it facilitated, the application of grammar to foreign languages, as, to Latin. Again, Greek mathematics had culminated into astronomy at Alexandria, and gave to the later Roman republicans far firmer conceptions of the order and even of the magnitude of the universe than were attainable to Socrates. In fact the accuracy of the Alexandrian astronomers made the objections of Socrates to physical science quite untenable, while they equally exploded the gratuitous assumption of the Epicureans that a *disorderly* and not an *orderly* chance domineers in the whole structure of the heavens and earth. I think even a casual reader of Aristotle and of Cicero must be struck by the contrast of tone between the two, whenever the subject of *Chance* is touched. Such a remark as the following, which to Aristotle was natural and plausible, would be quite out of date in Cicero. “There are four causes of events, Mind, Nature, Force, and Chance.” Not even in modern days, can one find a more decisive conviction that *order* reigns in the universe, and that Nature and God are one cause, not two, than is frequently to be discerned in the writings of Cicero. I think the change must be imputed to the development of astronomy in the course of three centuries. And the history of this science is so valuable an illustration of my present subject, that I must dwell on it for a moment.

Rightly to conceive the vast importance of the perfecting of one physical science in ancient times, and especially the science of the Sun and Planets, we must remember that ancient religion was developed out of Physics, not out of Morals. It did not at all startle a Greek, to reflect that divine action (according to the religion of his country) was not agreeable to human morality. Poetical speculators had taught him that the earliest gods were Titans, the personification of brute force and hugeness. These had been displaced by the higher intelligence of Zeus or Jupiter; yet even this nobler divinity was conceived of rather as a sagacious despot, living in majestic self-enjoyment, than as a Creator or benevolent Ruler. In the *irregular* action of the elements, chiefly or even alone, the power of Jupiter was supposed to be manifested; so that to an Aristophanes it seemed nothing but a concealed Atheism to refer thunder and lightning to the operation of orderly physical causes. Even the Stoical school of Greece struggled to the last to maintain the godhead of the separate planets, while rationalizing the local religions into a general Providence. But, in spite of partial inconsistencies, Alexandrian astronomy enlightened the most open minds as to the unity of God, the harmony of his universe and the fixed character of his laws. Thoughtful men had previously well discerned, that to admit a divine mind at all, is, to believe its serene superiority to those perturbations which make men vicious. Then, as now, there was plenty of room for Pantheism,—and even for Atheism in some intellects; but if these doctrines were to command any respect, they needed to put on a nobler form, and to recognize Order, Law, Rule, where formerly Disorder had been imagined. Epicureanism at Rome was no longer a philosophy, but in general a mere decent cover for unpatriotic indifference or mean self-indulgence, with apathy to all progressive knowledge which went beyond Epicurus: hence not even the genius of a Lucretius could commend it to any earnest mind. All the highest thought of the Roman intellect took a form akin to Stoicism, and erred rather on the side of changing Providence into Fate, than of admitting the theory of Chance. Of course a host of superstitions vanished of themselves from the minds of cultivated men, as soon as a belief in fixed Order pervading all things, was attained. Here (if I rightly connect cause and effect) we see a striking instance of the consequences to general Liberal culture entailed by the advance of the single science of Astronomy.

Equally striking is the weakness displayed by the professors of

Astronomy itself, when isolated in a land bereft of moral science. Egypt, from the earliest to the latest days, has been the country of magic ; and we may safely infer a general weakness of mind in such a community. A public which from childhood has believed in every kind of divination, and looks with mysterious fear on the powers of the conjuror, is so open to believe in the occult influence of planetary conjunctions, that astronomy was sure to supply materials for astrology ; and the astrologers themselves, while practising on public credulity for their own gain, cannot always have attained to a disbelief of their own science. It is a specious caricature of the doctrine of Universal Order, to represent human actions and accidents as determined by planetary movements : and the universal tendency of each science, as of every kingdom, is to overstep its own limits and encroach on its neighbour's domain. We need not here insist on the fact, that the arguments of abstract mathematics are inapplicable to practical life, nor advert to the opinion so strongly pressed by some, that mere mathematicians are peculiarly liable to credulity in subjects not mathematical. Whatever weight may be assigned to such topics, it is more to my purpose to press, that (it would seem) *no science can be perfected in isolation*. For it takes up but one part of the human mind, and cultivates that peculiarly ; but as it cannot really subdivide the mind, or get rid of its weak sides, that weakness will be felt, the moment the science attempts to deepen its own roots, to enlarge its basis and strengthen its vitality. A single science, thus isolated, must probably soon attain its fullest growth, and become a dead system, to be transmitted by routine. In fact, we may well believe that those in whose hands Astronomy turned into Astrology were seldom men who had reflected deeply and fruitfully on the great principles and essential logic of Astronomy. To them it was probably less of a Science than an Art—a curious fabric of rules for practical calculation—which could of course be used for superstitious divination as readily as a pack of cards. Thus, while each separate development of sharply defined truth yields a contribution of the highest value to general cultivation, we need the simultaneous activity of several branches of truth to sustain the healthy operation of the whole mind. We need also a diffused knowledge of these in the community to sustain soundness in public opinion, and prevent the perversion of the separate sciences into Black Arts and Professional Secrets.

Nor is this all. We may here, without becoming fantastic, press a political analogy. An empire, surrounded by feeble neighbours, which cannot resist its ambition, generally wastes

its force on unsated conquest, and neglects that internal development out of which alone permanent strength can proceed. So a science which has already performed some great exploits, if it stand alone, unchecked by other sciences, conceives the ambition of conquering domains which cannot belong to it, and exhausts its own energies on futile schemes,—as Astronomy in divining the secrets of future human events—whereby the real development of the science from within is naturally, if not necessarily, checked; and, of course, the public reverence for it is gravely impaired in the minds of the most thoughtful. Thus, as each state, and each man, finds a healthy control in the association of fellows and equals, so also does each branch of study, each profession.

After the overthrow of the Roman empire, when society had to be reconstructed from its first elements, Education went through phases substantially like to those which I have recounted. As fast as baronial or royal splendours developed an aristocratic associated order, the demand for a certain *refinement* established itself—they called it *chivalry*—consisting chiefly in bodily skill and grace, and courtesy towards men and women of their own order. The accomplishment of the knight and the gentleman was in large measure such as we now think frivolous; the knowledge expected of him was perhaps an acquaintance with heraldry, with etiquette, and with fashionable forms of speech; nearly as now, I believe, in Persia, in Siam, and many parts of the East. In general, we must admit that in a certain stage the cultivation esteemed liberal, is apt to be factitious and conventional. Mussulman Viziers have been highly celebrated for the beauty of their Arabic handwriting, which does not seem to us more important for a statesman than to fence well or to dance well. But here let me put in a word of apology for the pursuit of refinement and elegance. True gracefulness generally results out of *strength economizing itself*. This is manifest in the case of the graceful rower, runner, swimmer, in the movements of the cat or of the horse; and, if time allowed, it might be shown how the analogy extends to high art and to science. I fearlessly appeal to my mathematical colleagues, whether in their most abstract researches the cultivation of symmetry and elegance does not tend to the advance at once of the study and of the student. Strength and simplicity being at the bottom of all true beauty in action, far more faculties are cultivated in the study of elegance, than at a superficial view is imagined. I never have approved, and I do not approve of the exclusive, overstrained and generally premature effort after the composition of Latin verses, in many of our

public schools; yet I think it an entire mistake on the part of the utilitarian public to overlook the faculties usefully cultivated by those youths who, going beyond mere imitative trick, attain vigour in the art. The prevalent fault everywhere is, to set up some artificial and narrow standard of beauty, which sometimes is no more like to the true and natural beauty, than the court-dresses which we may all see upon Madame Tussaud's waxwork are like to the draperies of Flaxman; or, I will add, no more like, than the phraseology once called *Euphuism* in the English Court, resembles the manly periods of Shakespeare.

But I must farther admit, in partial defence of the Middle Age accomplishments, that sometimes the course of history itself forces factitious knowledge into accidental importance; and liberal culture becomes temporarily artificial, precisely because it ought to be, in the best sense, popular. For instance, to have a certain acquaintance with the religion, or it may be the mythology, of the nation in which we dwell, belongs to liberal knowledge, because ignorance of it unduly cuts us off from understanding our neighbours' minds. Hence, an Englishman in India may find it desirable to learn something of Indian religious fancies, which here seem very superfluous. When we go to the bottom of this, we may perhaps find it to involve the very same principle on which we cultivate our old classics in Europe, while no one will recommend the Latin language or the Greek mythology as a general study to Hindoos.

It seems to me, that any excessive leaning of liberal culture to conventional refinement is naturally corrected by the rise of positive science with professional aims. If the science deals in realities and can be appreciated by the popular mind, it quickly rebukes empty fantasies and recalls liberal impulses to more practical ends. In the Middle Ages of Europe, of which I was beginning to speak, there was a long attempt on the part of abstract science (whether to be called logical or metaphysical, I do not precisely know), to assume the monarchy of the human mind. The few who in recent times have given themselves to a profound study of those writers whom we call collectively the Schoolmen, generally agree in high praise of their acuteness. Yet the history of Europe appears to testify that, as in their own science they were unable to establish any agreement in results or methods, so too they failed to infuse any valuable corrective into the flimsiness of courtly education. At the latter fact perhaps no one will wonder, who observes of how little importance the Schoolmen made elegance and beauty—how they

barbarized every language the moment they touched it, and became unintelligible to all beyond the professional circle, even when treating subjects in their own nature popular—I mean, the deeply moving questions of theology and morals. It is notorious, that even the Reformers of the fifteenth and sixteenth century, in proportion as they were learned, partook of the same defect. I suppose it will be admitted, even by those who attribute most to the religious struggle of the Reformation, that, at least for a full century past, the more solid tendency of the *Artes Humaniores*, in modern Europe, is due chiefly to the corrective power exercised by the disciples of Galileo, Newton, and Adam Smith.

But some of my hearers may ask, whether, in contrasting professional to liberal culture, I do not imply that that which is professional is not liberal. This needs a distinct answer:—and here it is. Professions are not originally and inherently liberal; but they may be, and ought to be, liberalized in their advancement. And they seem to me to become liberal, (1) by calling in the resources of the whole mind: (2) in particular, by infusing into their own work some sense of order and of beauty; (3) as either result or cause, inspiring the student with enthusiasm and love; (4) by nourishing sympathy and reverence for *all* Truth and *all* Beauty found in other collateral pursuits. I must dwell for a moment on each of these points.

I said, "First, by calling in the resources of the whole mind." This phrase is somewhat overstrained; and yet not so much as might at first appear. While a science is in embryo, as a mere empirical or hereditary art, it probably makes very narrow demands on the faculties; it may be even a manual art. This is extremely obvious in the case of a surgeon, or, I will say, the dentist; yet it is not less true of the navigator, nay, nor of the primitive priest, whether he was a North American medicine-man, an Etruscan sooth-sayer, a Sabine *augur*, an Oscan *popa*, a Greek *ιερευς* or *μάντις*,—in short, a sacrificer of cattle or observer of birds, interpreting omens by routine. When embryo knowledge first endeavours to break the shell which confines it, and expands into a nobler life, we may discern two different lines of development. In the one case, the chrysalis bursts into a butterfly, and flutters through an elegant, gaudy, short life of premature and baseless speculation, of which the earliest Greek philosophy is a type. In the other case, the art, knowledge, or skill struggles into a professional science, as was the case with Greek surgery, or English law, or the European military art. Its end being then as

directly practical as in the case of shoemaking, to effect the end satisfactorily on each separate occasion is its only paramount aim. To cure the patient, to save the interests of the client, to attain the victory, are, in the several cases, of more importance than any general principles or sentiments. Practical success being the object, and utility the highest praise of the profession, all theory is justly regarded as superfluous which does not tend to success. Those practitioners who command what is thought success in their own day, are then generally slow to believe that this much coveted success will ultimately be promoted by investigations which seem to them highly remote from the practical object. It seems to be of necessity, and not to be censurable, that in each practical profession a large part of the successful and able men are so conservative of the past, and so suspicious of mere theory as to weigh with a heavy force of inertia against all novelty of principle. In the military art, there is many an old Fabius to oppose a young Scipio. But, to cast our eyes back on either of the professions, which I have named—who, five hundred years ago, could have dreamed of the amount of science which now enters into each? The most able practical navigator is no longer the mere skilful pilot and shipmaster, but is a man on whom the various accomplishments of Humboldt, if they could be attained, would not be practically thrown away. The surgeon is still an operator; but his action is guided by a cultivation of faculties once thought wholly unpractical. I say then, that a profession becomes more and more liberal, in proportion as it is less and less narrowed to certain lines of thought, and more and more needs every side of the mind.

Secondly, with every practical development a vast mass of experience and information accrues; to remember which, and turn it to use, a certain *digestion* of the same into an orderly form is almost essential. In nothing, I believe, is the academic teacher of a practical profession of more service, than when he fuses into *order*, perhaps even into *beauty*, the crude heaps of ever-accumulating facts which seem ready to swallow up or choke the student, not less in medicine or in chemistry than in law. The human memory does sometimes show a wonderful tenacity even of unconnected fact; but its task is exceedingly lightened when order, proportion, and grace arise out of chaos: and the same fusing power of genius which invests ugliness with beauty, not only refines and liberalizes its own art and the student, but also facilitates acquisition and deepens practical knowledge.

Thirdly, I say, a profession is liberalized when it inspires the

student with enthusiasm and love for itself. This is true of the meanest occupations. It is a fundamental fact of the human mind, solacing the toil of plodding millions, that Love is the great refiner of the soul, ennobling no less than purifying. The old domestic, who lives to serve and loves the service, throws beauty into the humblest actions, and performs every function the better for loving to perform them; and while mere mercenary self-abasement is often humiliating, and even servile, the ministrations of love are intrinsically liberal. Some indeed have said, that this is the difference of the Artist and of the Artizan, that the Artist is an Artizan who loves his work for the work's own sake. If any of you desire to excel in any branch of knowledge, the first matter is, that you pursue it for its own sake, as loving it. Of course, as soon as anyone throws his *heart* into his work, he will throw into it all the faculties of his mind also; and this may in itself sometimes fulfil the intellectual conditions which tend to make it liberal—namely, if he be a man of much capacity and wide knowledge. But it must be admitted, it more frequently is otherwise. The cultivator of some special branch of knowledge or of art may have an enthusiasm for his own pursuit which makes it honourable; and yet, from the limited range of his thought, his mind may be narrowed by its very devotion; and its action will then become less fruitful from losing not only the guiding analogies of kindred subjects, but also the suggestive stimulus which experience of very opposite character might have applied.

Fourthly, therefore, we desire in the Professional man a sympathy and reverence for other pursuits besides his own. It is *il*liberal, when one science is positively jealous of the advance of another, and has a secret suspicion that the two are natural enemies. But neither is it liberal, when mutual sympathies are deficient. In fact this absence of sympathy, even when partial, is generally a mark of ignorance; and when it is pervading, it constitutes narrowness of mind and ensures some form of bigotry. Such narrowness, such bigotry are counteracted mainly in two ways; by a wide basis of education in youth, and by a wide contact with human affairs in adult life. The man enthusiastically devoted to his special profession, and even absorbed by it, is apt by the very fact to meet only that side of human life which touches his profession; hence for him in particular it is important not to have had an originally narrow range of study. Herein lies the great difficulty, and the source of the prevalent defect, of self-educated geniuses. They revolve in their own too narrow circle, and persuade themselves that the interests of the universe are

comprized within their own horizon. Such men may have the kindling element of liberal study, and a part of its refinement; but they have not the expansiveness nor the symmetry of mind which it imparts.

Peculiarly, as I suppose, to obviate this narrowness—to ensure some breadth and variety of solid knowledge, and impart some versatility of taste and power, Collegiate Instruction is valued. So strong has the popular feeling been, as to the essential dependence of its benefit on the cultivation of *all* the sciences within the same walls, that it seems impossible to get rid of the erroneous etymology, which deduces the title University from its teaching Universal science. I confess I think that this etymology, however erroneous, is prompted by a sound instinct. At the risk of seeming myself to be illiberal, I will say, that (looking to the modern acceptation of the word *College*, and all the associations it has assumed) I think it an abuse of words to entitle an institution a College, where the time allowed for study is so short, that hardly can the elements of even one subject be thoroughly acquired, and much less is it possible to cultivate all sides of the mind. We have ourselves been attacked upon the very same grounds. Many who hear me must well remember, that when these walls were first erected, it was a favourite objection from Oxford and Cambridge that this institution could not be a University (a name which it then accepted), since, by omitting the study of Theology, it disavowed the claim to teach Universal Science. I do not wish now to reopen a controversy which may be thought exhausted and dead; but my argument itself leads me to make one remark in its own justification. It is this. While I believe that Theology is destined to be a true science, and (one may add) the highest of sciences, it is at present deficient in one important practical condition of academical science—namely, the fundamental concord of its professors. Notoriously, it was this which forced the founders of this institution to resolve not to have any Chair of Theology, lest it involve the claim to have several hostile chairs, and the right of dictating to the several holders what they should teach. But such dictation subverts the very basis of science, and makes all pretence to fundamental inquiry a pernicious illusion. Hence Theology was excluded, not by the nature of the subject, but because the chaotic state of the public mind concerning it refused freedom to the teacher. If ever the religious atmosphere of England shall be pure enough and calm enough to allow, without jealousy and panic, a Professor of Theology in Oxford, who is neither directly nor indirectly

subjected to any imposed creed, all the original reasons, and (I suppose) every just reason, against the teaching of Theology within these walls also, will have vanished.

To teach or learn *universal* knowledge is of course an absurdity. All that can be meant is, that it conduces to largeness of mind to have studied the foundations of knowledge in the most important branches, especially such as are in their nature peculiarly contrasted. To have studied one foreign language remarkably unlike our own; one branch of pure mathematics, one physical science, one moral science, must better conduce to versatility and expansiveness, as also to symmetry of mind and to real power, than to have been always absorbed in a single subject. But, that a young man may be able to take in and digest a variety of knowledge in a moderate time, it is almost essential that the knowledge be presented in a didactic form—that is, in a dogmatic form; and this may rather narrow, than enlarge the mind, if *results*, instead of *processes* and *lines of thought* be submitted to it. In proportion as each professional science attains its own perfection, its elementary parts assume a form adapted for general and liberal instruction. Its high practical results may be pre-eminently popular, exciting the applause of the crowd like magical performances or divination or fireworks; but the benefit to the mind is not from these, but from insight into its *ways and means*. From this quarter it is that the special professions,—having been liberalized by the love of truth, by well ordered digestion, by contact and sympathy with one another, and having been duly restrained to cultivate their own domain by mutual respect,—contribute each their important quota towards a broad and solid basis of liberal education, and towards that sound state of public opinion which refuses to become the dupe of quackery, whether it assume the old form of astrology and magic, or that of some modern delusion. There is indeed a natural sympathy and mutual support among sham sciences, equally as among the genuine; for when the barrier against unwise credulity is once thrown down, the mind which has received one system of error is generally greedy to embrace a second. But though an entire soundness of public opinion is not yet attained, we are happily in that stage in which we may hope that at least the raw materials of future science are being accumulated by those who, like the astrologers or alchemists of past days, pursue some futile object.

Great progress has already been made towards breaking down what is in most nations the commonest of illiberal errors,—the

disparaging of knowledge which does not instantly and visibly bear practical fruit. If metaphysical science is still undervalued among us, it is *not* (I am persuaded) on this mean and untenable ground; but because of the lamentable fact, that its professors, like the theologians, have so long appeared to the public as engaged in civil war: hence a general distrust of its scientific pretensions, which can only be dispelled gradually. But the splendid instance of astronomy and pure mathematics has for ever established the wisdom of valuing general truth for its own sake, long before we know of any practical applications. It might even seem, that the deeper the root and the richer the produce, the more hidden is the relation likely to be between the two. That the noblest growths ripen their fruit slowest, is a truth long ago familiar; and if there is a backward part of the public which ill appreciates this, at any rate it has established itself well in the minds of all our academic men of science.

Perhaps this may suggest to me the topic of most importance now to press on young men who are about to study for a professional career. Liberal cultivation no longer seeks for refinement exclusively, but to develop and strengthen all the faculties of the mind. Erudition without force of understanding, is a real embarrassment. No one is so dull, so feeble, so unpractical, as a man who has more learning than good sense. What shall I call him? a David in Saul's armour? Nay, but rather, a Claudius on the throne of the Cæsars. To apply ample materials wisely, requires not merely good common sense, but uncommon sense; which, if with a few it be a gift of nature, yet is either earned or perfected not by specific professional study, but by general equable development. As a general at Balaklava, poor in the midst of abundance, choked with his own stores, helpless to use his resources,—such is the student who crams his memory with the discoveries of great minds, but neglects to develop in himself those powers by which the discoveries were made. Farther, if he would use his treasures, he must attain the art of order and arrangement, so as to have them always at command; and above all, he must be able to bring into one focus all the scattered light which may conduce to a sound judgment on each practical question. It is perhaps the same power of mind which looks through the varying symbols of abstract science, and seizes the thing signified behind, and that which looks through the superficial symptoms into the fundamental points of any practical case. I will not dogmatize on this. But I do say, that in an arduous profession, where effort must be sustained for many

years before any great success is won, to be a few years behind in knowledge of a specific and technical kind, is of small importance, in comparison with the advantages of possessing higher mental qualifications. And here let me remark, that as Oxford and Cambridge have taken some lessons from us, it may be time that we learn a lesson from them. They have discovered that fair play must be given to the various branches of knowledge, and that the effort to force all minds to march through a single narrow path, leads to straggling, desertion, and terrible losses in the rear. They have greatly enlarged the choice of sciences and subjects; and no young man can now excuse his idleness by saying that he has no taste for the particular study forced on him, and he will never be able to excel in it. But they have *not* enticed their students to commence strictly professional study at an earlier age. They are doubtless aware that variety of thought and versatile ability are best gained by a broad culture fitly called liberal; and that the mind thus prepared will afterwards show increased energy, when concentrated on some practical profession. The educated public, moreover, is not blind nor unjust. It sees that refined accomplishment not only is no hindrance, but is an aid to professional success, if specific professional study follow it; hence the favour shown to academic distinction; hence also a prevalent desire in our barristers, physicians, and clergy, that a previous literary degree should be even artificially encouraged. But the object is frustrated, if purely professional study is allowed to begin too early. Finally, I may add: the young man who is enabled to prolong his general education, and to cultivate knowledge and talent less obviously essential to the profession which he will ultimately embrace, not only provides best for professional success in the end, but becomes a more accomplished *man*, better furnished for his duties as a citizen and as a member of society. He finds no chasm to separate his lines of thought from those of the liberally educated, but is able to sympathize with all the forms of science, to understand and to learn from the most opposite quarters. This is a principal fruit of a well-chosen and persevering collegiate course; and in it we may find liberal and professional knowledge harmoniously combined.
