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THE COLLEGE

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THE COLLEGE ¹

No one of the other subjects selected for discussion in the seven divisions, twenty-four departments, and one hundred and twenty-seven sections of the Congress of Arts and Science seems to me so vitally connected with the future well-being of the American people as the American College which we are to discuss to-day.

The College does indeed need eloquent defenders, such as the speaker who has preceded me, for the executioner's ax is at its throat. The school, however badly planned taught and administered, has an assured existence; the university, however amorphous and inchoate, is to be fostered and extended; but the College, the center of all our culture for the past century, is sore beset, and has more to fear from the Judas-like kisses of its friends in high places than from the mob of the illiterate and sordid, who always cry "loose us Barabbas" when the powers of evil are in the ascendant and any mighty influence for good is brought to the judgment seat. Let us this afternoon mount the tribunal and try the case. As the accused is on trial for his life, plain speaking will be in order.

We are told first of all that the prisoner cannot be identified, that his personality is all abroad, that his very aeg is not certain, and that even his name is not his own, but that he is often caught masquerading under the name of "university" or "high school."

It is true that his adversaries have striven mightily to destroy the character and moral stamina of the college course thru the foolish dissipations of unrestricted electives, but, thanks be to the powers that make for righteousness, they have striven in vain. Everything now indicates a return to the old

¹ Paper read before the International Congress of Arts and Science, Department 23 (The College), Section 3, at the Louisiana Purchase Exposition at St. Louis, Mo., September 19-24, 1904.

educational standards of strenuous intellectual discipline—and to better than the old standards. It cannot be denied that other enemies of the College, working in darkness, have insidiously set out to hew off one year of his age, the very flower of his maturity, in order to enrich the professional school; and that still other enemies, working openly in the eye of day, have deprived him outright of the last and supreme year of his growth; and that even now a howling pack of high schools is at his heels, snatching at the first year of his budding strength. It is too true that within the past decade two mighty university foes have come up against him—one from the greatest city of the East, and one from the greatest city of the West—menacing his life itself with whirling swords, to cut him asunder at the belt-line, leaving him a two years' torso, casting the last two years, the heart and brains of him, in part to the professional school, but in greater part to outer darkness and destruction; and yet, altho all this is true, and altho the combat is still raging, it is not, I think, too soon to assert that the prisoner at the bar will continue to be in the future, as he has been in the past, four years of age, four whole, happy, fruitful college years—no more, no less.

Finally, as to the name of the accused. His name is "the College," the name that has come to be applied by universal consent to a four years' course of liberal, non-professional study, superimposed on the course of the high school, private school, or academy, pursued by young men (and since 1870, by young women) from eighteen or nineteen to twenty-two or twenty-three years of age, who have, as a rule, left their homes and come to reside in the college itself, or in the town or city in which it is situated. The name and the thing are purely Anglo-Saxon, brought over by our forefathers from the mother country. The college as an institution is unknown outside the United States and Great Britain and her colonies. The name is ingrained in our thought and history and should be retained so long as the thing itself remains. It is a real obstacle to clear thinking to call a "college course" a "university course," as is constantly done in the West. There is absolutely no difference in the methods of instruction of a properly organ-

ized college, whether it be detached like Amherst or Bowdoin, or part of a group of professional and technical schools, like Michigan or Chicago. Even eminent university presidents have been betrayed by this loose terminology into assuming that the instruction in the detached college and in the college of a university should differ essentially, forgetting that the mind of the boy or girl does not change with the change of name, and that students of the immaturity of the American student between eighteen and twenty-two years of age cannot with advantage to themselves pursue college subjects by university methods.²

It seems to me vain to hope to displace the term "university," which is now so firmly established thruout the entire West, and recently also in the East as well. And, after all, is there any good reason why we should use the word in its foreign German or French, and not in our own English sense? Oxford and Cambridge have been composed of numerous undergraduate colleges from the beginning of their history. The Scotch and Irish universities are so organized. The new universities of Manchester and Birmingham and Liverpool correspond precisely to our State universities, with college departments and undergraduate technical and professional schools. "University" in English and American usage means, and has always meant, a group of schools, all undergraduate, of which the undergraduate college usually is, and always should be, the most important. However low in grade is the instruction offered, a variety of technical and professional courses seems to constitute the claim to the name "university" in Anglo-Saxon countries. But if it is vain to displace the term "university," let us see to it that the word "college" is used correctly, and let us sharply distinguish by the preface of the word "graduate" the true graduate schools of medicine, law, and theology, and also the true graduate philosophical school from the ordinary low-grade non-graduate professional schools of the majority of American universities.³ Let us

² See, *e. g.*, President's Report, University of Chicago, 1898-99, reprinted in the Decennial Publications of the University of Chicago, Series I, p. xciv, xcv.

³ The only graduate professional schools in the United States are the Medical School of the Johns Hopkins University, the Medical, Law, and Theological Schools of Harvard, and the Law School of Columbia.

accustom ourselves to speak of the graduates of Harvard College, Michigan College, Chicago College, or of graduates of the College of Harvard, Michigan, or Chicago, just as we speak of graduates of the Medical School or Law School of Harvard, Michigan, and Chicago. The term university graduate is too broad, and may mean anything from a doctor of philosophy to a farmer, or horse doctor, without even a high-school education. It should not be used for college graduates. Unless this rule is followed by college and university authorities, all our detached colleges will inevitably be compelled in self-defense to call themselves universities—a real pedagogical misfortune, and a break with tradition and culture.

But let us proceed to trial. Why should the prisoner lose his head, or his feet, or be sawn asunder in the middle? Is it because, as indicated above, our American university professional schools are not university schools in the French or German sense? Already in 1884 the far-seeing President of Harvard University had begun to urge the shortening of the college course and the raising of requirements for admission to professional schools, in 1893 the Johns Hopkins University opened its school of medicine, the first graduate, or true university professional school, in the German sense, in the United States. Also in 1893 Professor Von Holst in his oration before the first Convocation of the University of Chicago sounded a clarion note of awakening to American universities, and in 1900 Professor Perry's lucid and admirable monograph on *American universities* drove home conviction of sin. Since 1893 university presidents, like all other American scholars, have realized that our American universities are not universities in the German sense of an assemblage of graduate professional schools, and it is in order to reform this condition of affairs that many of them have joined President Eliot in endeavoring to shorten the American college course. Obviously one way to make our professional schools graduate schools (in name, if not in fact) is to lower the standard of the degree we require for admission. This is the method adopted by Harvard, which since 1902 has required

the B. A. degree for admission to its schools of law, medicine, and theology, but has reduced the time requirement for its bachelor's degree from four to three years. Another and more rapid method of producing graduate professional students has been in operation at Chicago University since 1898. The college course has there been cut in half, and a certificate of what we may call "immaturity," but what Chicago calls a diploma of "University [*sic*] Associate," has been given at the end of the Sophomore year, and it is hoped to require this certificate for admission to the professional schools of the university.⁴ The President of Columbia is now urging still more radical action, which, if generally adopted, will, in my opinion, sound the death knell of the college. He proposes two B. A. degrees, one to be conferred at the end of the Sophomore year for those who take up professional study, and one to be conferred at the end of the present Senior year for such other students as may chance to linger to receive it.⁵ Graduate professional schools obtained by such a sacrifice of culture and efficiency will, it seems to many of us, be graduate schools only thru the quibble of a misused name.

Another and even more insidious plan for securing graduate students in professional schools is now in operation in many universities. The last year of college work is permitted to be taken in the law or medical school, and is counted double,—once as the senior year of the B. A. course, and twice as the first year of the professional course. The student himself also counts double, once as an undergraduate Senior, and twice as a

⁴ See the Decennial Publications of the University of Chicago, Series I, p. 85, 86, xcii, xciii, xcv, xcvi.

⁵ This statement is obviously based on a complete misunderstanding of the facts.—EDITOR.

[I greatly regret that I should have overlooked President Butler's suggestion (see President's Report, Columbia University, 1902, p. 44) that these two B. A. courses should be differently lettered, although I confess that to my mind the substitution of an M for a B in the degree conferred at the end of the present four undergraduate years will do little, or nothing, to avert the disastrous consequences to be feared. The sentence in question should have read as follows: He proposes in reality two undergraduate courses, one to be known as the B. A. course, ending with the present sophomore year for those who take up professional study, and one to be known as the M. A. course, ending with the present senior year for such other students as may chance to linger on to complete it.—AUTHOR.]

graduate member (which he is not) of the graduate professional school. Nothing more disastrous to honest standards of academic work can be conceived of. Yet Harvard, Yale, Columbia, Cornell, Pennsylvania, and many other Eastern and Western universities are now educating ministers, doctors, and lawyers under this shifty and canny arrangement.

But why, then, apart from the desire of some universities to inflate their professional schools, should the college course be shortened and its content lessened? For let us squarely face the fact that this is the issue involved. It is idle to assert, as has been asserted repeatedly in official Harvard publications (see President's Report for 1901-02, p. 27, and many earlier reports), that the content and quality will not be lessened by a shortened college course, or, in other words, that four years' work can be done in three years' time. All practical teachers know that the professor must adapt his pace to the average of his class, and that if the majority is doing four years' work in three years' time, the majority will see to it that three years' work, and not four years', is done. Harvard itself is a case in point. In 1880 twenty-one courses were required for the Harvard B. A. degree; in 1904 only seventeen and one-half courses are required, of which one and one-half may be passed off at entrance, or in reality only sixteen courses are required in the present three years' Harvard B. A. course as against twenty-one courses required for the former four years' Harvard B. A. course. A recent report of a "Committee on Improving Instruction in Harvard College," appointed in May, 1902, whose membership of nine included some of the best-known senior professors of the Harvard Faculty (see *Harvard graduates' magazine*, June, 1904, p. 611-620), states that "the average amount of study in Harvard College is discreditably small," that "the average amount of work done by undergraduates (more than one-half of whom have obtained the grade of A or B) in connection with a three hours' course is less than three and one-half hours a week outside of the lecture room," and "that the difficulty of raising the standard is seriously increased by students' taking six courses each" (in other words, by students'

taking the college course in three years). If under the unrestricted elective system the college course has lost tone and become too easy by one-fourth for the ordinary student, the remedy would seem to be in stiffening up the already emasculated course, not in lopping off a year of it.⁶

Why should the college course be shortened? Because in France and Germany a boy completes his course in the lycée or gymnasium at twenty years of age, and enters upon his professional course at the university without anything that remotely resembles our college course. But is this a reason? How do we know that the German or French boy is better off without a college course? After sitting side by side with the German gymnasium graduate in Leipzig for three years and hearing him blunder thru his pro-seminar recitations, and after listening in the Paris International Congress of 1900 to prolonged discussions about the limitations of the lycée graduate and the misfortune of his choosing a career with only the school outlook of the lycée course—discussions in which he was incessantly compared by Frenchmen themselves to the English and American college graduate greatly to his disadvantage—I have come to the conclusion that he is much worse off. If it were possible, and if possible desirable, to enforce over the whole United States two or three cast-iron high-school courses, so difficult and rigid that private schools would be practically annihilated thru the impossibility of reaching their standard, and to require the completion of one of these courses not only for admission to all the colleges, but also to all the law, medical, and theological schools in the United States, and above all to every lucrative and distin-

⁶ President Eliot (President's Report for 1892-03, p. 24) says: "Nobody doubts that at present the degree of Bachelor of Arts can be obtained in Harvard College, or in any other [*sic*] American, English, or Scotch college or university by any young man of moderate parts with a small expenditure of force during not more than one-half of each of the years of nominal residence."

Professor W. E. Byerly (*Harvard graduates' magazine*, December, 1902, p. 186) says: "It is commonly, and I believe correctly, asserted, that a student of fair ability, entering college from a good preparatory school, choosing his courses with discretion, using borrowed or purchased lecture notes, and attending one or two coaching 'seminars' for a couple of evenings before the mid-year and final examinations, can win our A. B. degree without spending more than half an hour a day in serious study outside of the lecture and examination rooms."

guished position, whether civil or military, in the gift of the general or State governments, including, of course, the position of teacher in these same high schools and in the primary schools as well, and if, furthermore, completion of six out of the nine years in these high schools were made the condition of escaping one year's hated service as a common soldier in the army, and the escaping of such service, furthermore, were made, as in Germany, a primary social necessity for gentlemen—if all this were possible, perhaps our American boys too would be able to learn as much by twenty years of age as German or French boys; and perhaps such tremendous financial and social bribes would buy the silence and co-operation of American parents in the German or French deliberate and unwavering sacrifice of youthful joy and sports before the Moloch of future success. Even if all these impossible conditions were to come into existence in the United States, it is at least an open question whether we should not have lost in education far more than we should have gained. In all comparisons between German and American higher education it ought never to be forgotten that the German and French universities do not profess to teach systematically and to examine the ordinary college student who is preparing himself for the life of affairs. They deal primarily with professional students, whereas the reverse is coming to be true in the United States. But it is impossible to argue from one country to another when conditions are so radically different.

Our opponents ask us what there is sacred about the number four, and remind us that some few early American colleges had a three years' course, as have Oxford and Cambridge to-day. But our conditions are as different from colonial America, and from Oxford and Cambridge, as from France and Germany. In England, as in Germany, the would-be honor student who goes up to Oxford and Cambridge from the great English public schools, which are in themselves residential colleges in our sense, giving the social and educational stamp of the American college and teaching far more of classics and mathematics than any American high school or academy, has everything to gain or lose in his after-life, both financially

and socially, from his success or failure in the most rigid examinations the world has ever known. Perhaps if in our American colleges we could select by the most strenuous competition the best tutors and employ them at high salaries to teach our college students in small groups of two, three, and four students, and all our ablest students by themselves, and if we too could make so much depend upon the grade obtained by these students at the end of a three years' course of study in an examination so rigorous and searching as to be without parallel in our educational system, we might be able to obtain as good results in three, as in four years. But in Oxford and Cambridge, as in Germany, it is only the "honor," not the "pass," men who attain this education. The education of the average man is neglected.

There is of course nothing sacred about a four years' course as such, except in so far as the experience of seventy years has proved it to be adapted to the needs of successive generations of college students. The college department of the Johns Hopkins University is often referred to as an example of a three years' college course; but in reality it is composed of the usual four college classes, the first-year students being known as "candidates for matriculation," and a real Freshman, or preparatory, year being maintained under the name of a "class for non-matriculants." The standard of admission to the three years' college course has been set so high that since the opening of the college in 1876 this class of non-matriculantes, or Freshmen, has formed 21.5 per cent. of the whole undergraduate body of students, and in the year 1903-04 these non-matriculantes numbered 38, and the matriculates 104; in other words, the non-matriculantes were not less than the number of Freshmen one would naturally expect in an undergraduate college numbering 142 students. Moreover, the undergraduate department of the Johns Hopkins University is so small and unimportant, as compared to its graduate school, that, even if the course of study were not practically a four years' course, it could not be used to prove that a three years' college course will satisfy the needs of the community, especially as an immensely greater proportion of the gradu-

ates of the College of the Johns Hopkins University (over one-fourth) enter the graduate school than is the case elsewhere.

For the past nineteen years I have acted as adviser to the students who have studied at Bryn Mawr College, and I have been consulted by them in their Freshman, Sophomore, Junior, and Senior years. If my experience proves anything at all, it proves that the first two years, or the first three years, of a college course do not really count as equal in value to one-half, or three-fourths, of four years, because the Junior and Senior years are usually years of such intellectual awakening, and furthermore that the Senior year has a value far greater than that of the other years. It is the culmination of the whole college course, and a student who leaves college at the end of three years suffers, it seems to me, incalculable loss. As the entrance requirements of Bryn Mawr are at least as high as those of any college in the United States, and its college course, organized under the group system, really strenuous and difficult, and as girls are supposed to be more mature than boys of like age, and admittedly at present study more faithfully, my observations could not, I think, have been made under more favorable conditions for the shortened college course.

Why, then, should this priceless Senior year be omitted, or taken in the law or medical school? Is it because those high in authority have told us that boys are entering college from one to two years older than in the past, and that therefore this lost year must be recovered? But four careful statistical studies of age entering college have proved beyond a shadow of doubt, that such statements are not supported by fact, and that for the great majority of colleges the median and average age of admission has not varied three months in the past fifty years, the median age showing a net reduction of two months in fifty years for all colleges, and the average age having fallen one and one-half months in the past forty years.⁷

⁷ President E. Benjamin Andrews, "Time and age in relation to the college curriculum," *EDUCATIONAL REVIEW*, February, 1891, p. 133-146; S. C. Bartlett, "Shortening the college course," *Education*, June, 1891, p. 585-590; Professor W. Scott Thomas, "Changes in the age of graduation," *Popular science monthly*,

We are told by these same special pleaders that in maturity and acquirement the college student of to-day is two years above the college student of thirty years ago. This statement does not admit of the same disproof, but as the age of the college student of to-day remains the same as thirty years ago, we may be permitted to doubt it. Maturity and acquirement are more a matter of age than we realize. Were it not for this it would be easy for American fitting schools to prepare boys and girls for the highest American college entrance requirements at seventeen, or even at sixteen, but the majority of colleges do not wish such young students. Immaturity of mind would make them undesirable.

We have been told repeatedly in the course of this discussion that college attendance in the United States was falling off, and that, unless our colleges were to be deserted by students, we must shorten the course in order to attract the sons of practical men. Again statistical investigation has proved this statement also mistaken. On the contrary, practical men are sending their sons and daughters to college in such overwhelming numbers that all our best colleges are growing in students out of all proportion to the population.⁸

June, 1903, p. 159-171 (the arguments of above three papers are summarized by Professor Elmer C. Brown in Addresses and Proceedings of the National Educational Association, 1903, p. 492-493); Professor Henry P. Wright (President's Report, Yale University, 1901-02, p. 43-44, and 47-50) has shown that, in spite of the very great gradual increase in the amount required for admission, the average age of Yale classes at graduation has increased less than four months in the forty years from 1863 to 1902; and only nine months in the past eighty years. In studying the age of admission during the past forty or fifty years, care should be taken to consider only the statistics of those colleges which have maintained a genuine college course during this time, whose standards have developed gradually, and not colleges situated in large cities that have developed from comparatively low-grade institutions into really high-grade colleges within the past few years. For example, the age of graduation at New York University has risen thirteen months in the past fifty years (see *Popular science monthly*, June, 1903, p. 160). Since 1860 the age of graduation at Columbia, and the work done, have risen two whole years according to careful estimates, and according to actual statistics the age of admission has risen one year between 1880 and 1902 (see President's Report, Columbia University, 1902, p. 39). It is only recently that colleges situated in cities have been able to maintain standards of admission and college work such as the best-known New England colleges, Harvard, Yale, Amherst, etc., have maintained for the past five decades.

⁸ Professor Arthur N. Comey, "The growth of New England colleges," *EDUCATIONAL REVIEW*, March, 1891; and "Growth of the colleges of the United States,"

Recently a novel and equally fallacious argument has been brought forward. We are told that the college course must be shortened to three years because an examination of the marriage statistics of a certain college for men shows that the children of married graduates are not numerous enough (in the classes graduating from 1870 to 1879, for example, not over 1.95 children per Harvard father) to enable college men to reproduce themselves, and that the children are so few because the four years' college course has unduly delayed the beginning of professional and business life, and has thereby prevented such men from marrying until so late in life that their power of reproduction is limited—presumably by old age. It is almost needless to point out that before drawing any such far-reaching conclusion in regard to the shortening of the college course it would be necessary to know many other factors in this particular case, such as the average age of marriage of these college graduates, the age and other qualifications of the women they marry, and, above all, whether there is the slightest ground for supposing that the postponement of marriage one year by a man presumably in his prime could materially affect the number of children he is able to beget, if he and his wife wish for the largest attainable family. But a reference to well-known statistics will dispose of the whole argument. In the case of the alleged increase of the age of graduation, and the assumed decrease of college students the facts themselves were incorrect, here the conclusions are wholly unjustified. The failure of Harvard students to reproduce themselves is not a peculiarity of Harvard graduates as such, but seems to be a characteristic of our American stock, and, above all, of our native Massachusetts stock, to which two-thirds of Harvard graduates belong. It seems to be as true of native American factory operatives, farmers, and

EDUCATIONAL REVIEW, February, 1892; Mr. Talcott Williams, "The future of the college," Proceedings of the Association of Colleges and Preparatory Schools in the Middle States and Maryland, 1894, and also "College entrance examinations," Proceedings of the same Association, 1896, an admirable statistical paper showing not only that college students have greatly increased, but that at Amherst during the last fifty years the percentage of those students graduating in each entering class has risen from 70 per cent. to 72 per cent., and that at Yale during the past thirty years the percentage has risen from 63 per cent. to 72 per cent.

artisans as of Harvard graduates, and has, therefore, nothing whatever to do with the length of a college course, or, indeed, with a college education at all.⁹

Should, then, our college course be shortened because our professional courses are long? There were in the year 1902, according to the Report of the U. S. Commissioner of Education, 88,879 students pursuing college courses in the United States, and 49,076 students studying law, medicine, and theology, and of these only 7,189 had received the bachelor's degree. Only two medical schools, the Johns Hopkins, and Harvard, and only two law schools, Harvard, and Columbia, now require a bachelor's degree for admission. It was estimated by a special committee of the Board of Overseers of Harvard University that in 1890 only 8 per cent. of the

⁹ See President Eliot, President's Report, Harvard University, 1901-02, p. 31-32. For additional statistics of the marriage rate and size of families of college graduates of Yale College see Mr. Clarence Deming, *Yale alumni weekly*, March 4, 1903; Professor Thorndike, "Decrease in size of American families," *Popular science monthly*, May, 1903, gives similar statistics for New York University, Middlebury, and Wesleyan; Dr. George J. Engelmann, "Education not the cause of race decline," *Popular science monthly*, June, 1903, prints tables for Harvard, Yale, Princeton, Bowdoin, and Brown, and compares them (favorably for college graduates) with similar statistics for other classes of the population; President G. Stanley Hall and Dr. Theodate L. Smith, "Marriage and fecundity of college men and women," *Ped. Sem.*, vol. x, September, 1903, p. 275-314; President Stanley Hall, *Adolescence* (Appleton & Co., 1904), vol. ii, p. 590-606, discusses the question of the marriages and children of college men and women, but draws conclusions apparently unjustified by existing data in the case of men college graduates, and certainly wholly unwarranted in the case of women college graduates. These statistics may be compared with similar statistics for Massachusetts and the rest of the United States: Dr. Nathan Allen, "The New England family," *New England magazine*, 1882; F. S. Crum, "The birth-rate in Massachusetts" (1850-90), *Quar. jour. of economics*, April, 1897; S. W. Abbott, "Vital statistics of Massachusetts from 1856-95"; Dr. Ellis, "Deterioration of Puritan stock and its causes," privately published by author, New York, 1894; Kuczynski, "The fecundity of the native and foreign-born population in Massachusetts" (period from 1835-1897), the *Quar. jour. of economics*, November, 1901, and February, 1902; Dr. Fred A. Bushee, American Economic Association Publications, May, 1903; Dr. John S. Billings, "The diminishing birth-rate in the United States," *The forum*, June, 1903; Dr. Fred A. Bushee, "The declining birth-rate and its cause," *Popular science monthly*, August, 1903 ("these statistics put the whole native population of Massachusetts in the same position as college graduates, and the question accordingly seems to be one of the upper class, or of the older part of the population, and not simply a question of the educated classes," see p. 357); Joseph Körösi, "An estimate of the degree of legitimate vitality, drawn from municipal statistics, Budapest," with comments by Francis Galton, *Journal of the Royal Statistical Society*, vol. 55, December, 1894.

medical students, 18 per cent. of the law students, and 23 per cent. of the theological students of the United States had received the bachelor's degree (see Report, p. 12). In the law and medical schools of Yale, Columbia, Pennsylvania, and Cornell, which, together with the purely graduate schools of the Johns Hopkins, and Harvard, may be assumed to be the best equipped and most advanced professional schools of the East, the bachelors of arts and science did not average 31 per cent. of the whole body of professional students in 1902 (see President's Report, Harvard University, 1901-02, p. 29). Only 11 per cent. of college graduates of twenty-seven of the most advanced colleges in the United States study theology (see Professor Francis G. Peabody, "The proportion of college-trained preachers," *The forum*, September, 1894, p. 30-41). Clearly, then, the answer is emphatically no. The college course must not be impoverished in the interests of a few thousand holders of the bachelor's degree pursuing professional study, and forming scarcely 7 per cent. of the total number of college students, and not even one-third of the professional students, in the most advanced professional schools in the East. Moreover, even as it is, these college graduates in professional schools are not a year older than the non-college graduates in these same professional schools, according to the age tables of the Harvard Law School covering twenty years (see President's Report, Harvard University, 1893-1904, p. 127). Yet most discussions on the length of the college course begin gravely with the statement: "Since it is admitted by common consent that the practice of the professions begins too late in life, *therefore* the college course must be shortened." But who has admitted it? Surely a study of the whole subject affords us no reason for admitting it. Quite the reverse. Before we repeat over like parrots such phrases as this, let us investigate the actual conditions. For example, let us first find out what the non-college graduates who form two-thirds of professional law students have done with the three years during which the other one-third are in college, and why they are only a few months younger than college graduates in law schools. How

do we know that, if we shorten the college course in the interest of this college third, they will spend the year thus saved in the professional schools? May not they also dissipate it like the two-thirds who do not go to college?

And, surely, the college course should not be shortened because of our graduate schools of philosophy. So few students are graduated from these schools that they are a negligible quantity. In the past five years, from 1898-1902, only 1,566 men and women have received the degree of Ph. D. from the thirty-four graduate schools of the United States, and most of these graduates have been bribed by scholarships and fellowships to take this degree. During these five years over 54,900 bachelor's degrees have been conferred.¹⁰ Also, the age tables of the Harvard Ph. Ds. kept during the past seven years, (see President's Report, Harvard University, 1902-03, p. 139) prove that the greater number of Harvard Ph. D. graduates (and presumably other Ph. Ds.) are twenty-eight years of age and over, and do not, therefore, take up graduate study immediately on graduation, and are not directly affected by the length of the college course.

Shall we shorten the college course because the College has proved itself inefficient in the past? No, a thousand times, no! It has been the glory of our past, the source of stability and sanity, the radiant center of all our gallant action and liberal thought. And since its integrity has been so seriously threatened we have become aware by numerous statistical investigations that the College has also been in the past the nursing mother of statesmen, and men of affairs, and the lavish bestower of fame and of all those social distinctions that we long to receive at the hands of our fellow-men. It has been proved that altho in the past only 1 per cent. (the ratio is now over 3 per cent.) of American men have received a college education, in the Fifty-fourth and Fifty-fifth Congresses the House of Representatives contained nearly 36 per cent. and the Senate over 36.3 per cent. of college-bred men, or thirty-

¹⁰ See Reports of the U. S. Commissioner of Education; *Science*, August 19, 1904, states that in the past seven years, from 1898-1904, only 1713 Ph. Ds. have been conferred.

two times as many as might have been expected; that in the fifty-seven years, from 1841-98, 55 per cent. of the Speakers, 55 per cent. of all the elected Presidents of the United States, and 54 per cent. of all the Vice-Presidents have been college graduates, and that 68 per cent. of members of the Supreme Court, and 85 per cent. of the Chief Justices of the United States have been college-bred men.¹¹ One out of 40 college graduates as against 1 out of 10,000 non-college graduates are mentioned in Appleton's *Encyclopedia of American biography*.¹² In the 1900 edition of *Who's who in America*, 1 in every 106 of the living graduates of the colleges mentioned in *Who's who* has attained mention as against 1 in 600 of non-college graduates, or, in other words, a college graduate's chance of this kind of *Who's who* eminence is more than 5.6 times that of the non-college-bred man. If we assume that 27 per cent. of lawyers are college graduates, this 27 per cent. forms 46 per cent. of the eminent *Who's who* lawyers; likewise the 24.7 per cent. of college-bred clergymen form 53.3 of the divines mentioned in *Who's who*, and altho only 7.5 per cent. of physicians have received a college degree, this 7.5 per cent. furnish 42 per cent. of the physicians who have attained *Who's who* fame.¹³

What does a year more or less matter in beginning professional life, even if all college graduates entered the learned professions (which they do not), if college-bred professional men have five times the chance of other men to attain wealth and eminence? Why should college graduates wish to enter business life younger than twenty-two and-a-half years of

¹¹ Professor John Carleton Jones, "Does college education pay?" *The forum*, November, 1898.

¹² President Charles F. Thwing, "The pre-eminence of the college graduate," *Within college walls*, p. 156-181.

¹³ Professor Edwin Grant Dexter, "A study of twentieth-century success," *Popular science monthly*, July, 1902; see also his "High-grade men: in college and out," *Popular science monthly*, March, 1903 (three times as many Φ B. K. graduates, or high-grade graduates of twenty-two colleges, are shown to have attained mention in *Who's who* as we should expect; in other words, if an ordinary college graduate has five and one-half times the chance of eminence of other men, a college graduate of high academic rank has more than fifteen times the chance of eminence). The investigation is carried farther by Professor A. Laurence Lowell, "College rank and distinction in life," *Atlantic monthly*, October, 1903.

age, if their college education will insure them more than five times the chances of success they would have had had they begun work four years earlier? How can we be sure that this chance will be reduced only proportionately by taking away one, two, or three years from the present college course?

Why should we wish to lay rash hands on an institution so wonderfully adapted to our needs as the American college? How could we have hoped for more overwhelming proof of its efficiency and success, measured not only in the wider vision, broader intellectual sympathies, deeper personal happiness of its graduates, and in all the intangible and ineffable things of the spirit, but also, in this truly unexpected and marvelous fashion, in the ringing coin of the market-place? I confidently believe, therefore, that the college course of the future will be four years.

Will the college course of the future be wholly elective? When President Eliot became President of Harvard College in 1869, one-half of the Harvard college course was elective, and from that day to this Harvard has led the way under his guidance toward unrestricted electives, not only in the college but in the school. Since 1890, however, there are many indications that the pendulum is swinging back again and common sense reasserting itself. Everyone believes in giving the student a wide choice in studies under certain restrictions; the question is precisely whether, or not, the student shall be guided in some degree by the accumulated experience of educated men that have gone before him, as expressed in a college curriculum. Our decision as to the wisdom of unlimited freedom of electives in both school and college depends on whether subjects of study do, or do not, differ among themselves, apart from their practical value, as intellectual disciplines, that is, in training our mental powers. Everything in education depends on our answer to this question. I confess that it is to me inconceivable that all subjects, irrespective of their subject-matter, even if equally well taught, should give the same, or equal, intellectual results. The mere statement of such a proposition seems to me a *reductio ad absurdum*. If the proposition be true, why do

college-bred students excel students that have had severe professional training not only in after-life, but also in the professional school itself? In the ten years from 1891 to 1902 the 37 per cent. of Bachelors of Arts in the Yale Law School carried off 62 per cent. of the honors and 70 per cent. of the prizes, and in the Columbia Law School 94 per cent. of the 237 men who have attained honor rank in the past ten years have been college graduates.¹⁴

If we believe that there is a real difference in the intellectual value of studies, it follows as a consequence of this conclusion that certain studies should be taken by everyone if we have in view the development of intellectual power by the college course, and if we believe in mental discipline, the element of continuity also must be insured by the college, and, of course, by the school, and only so many electives should be permitted as are consistent with training and continuity. There is, I believe, a kind of curriculum that combines all these qualifications—the “Group System,” introduced in 1876 in the three years’ (now four years’) undergraduate course of the Johns Hopkins University, amplified into a four years’ course and named the “Group System” by Bryn Mawr College at its opening in 1885, introduced into the college course of the University of Indiana in 1888 by President Jordan and Professor von Jagemann, and now adopted in slightly altered form in the West by Illinois, Northwestern, Indiana, Missouri, Wisconsin, California, and by the two most recent educational foundations of the West, Leland Stanford, Jr., and Chicago; and in the East by Williams, Dartmouth, Tufts, New York University, by Pennsylvania (in the strict Bryn Mawr form), and by the four women’s colleges of Smith, Wellesley, Mt. Holyoke, and the Woman’s College of Baltimore. Yale adopted the A. B. C. system, or modified group system, in 1901. Clark College of Clark University opened in 1902 with the group system in full operation, and the approval thereby given to the group system by its president, the Hon. Carroll D. Wright, the well-known statistician, is very signifi-

¹⁴ See President’s Report, Yale University, 1902-03, p. 131; and President’s Report, Columbia University, 1902, p. 125.

cant. Princeton, whose president as a graduate student of the Johns Hopkins University and a professor of Bryn Mawr College was familiar with the true group system, puts in operation this year a modified group system, and the President of Columbia in his report for 1902 promises an early consideration of the group system recommended by three members of the Columbia scientific faculty, two of whom became acquainted with the working of the group system as students in the Johns Hopkins University and professors in Bryn Mawr College.

It is, then, I think, clear that our four years' college course will be, not a free elective course, but that wisely ordered combination of freedom and authority known as the group system. In this respect Harvard does not, I believe, represent the most enlightened educational opinion.

The American College in its fullest perfection will be a residential college. We are coming to see that the best results of college life are only to be obtained when the college student lives an academic life among his companions. The English college for men is unique among the institutions of the world, and its finished product—the English gentleman, equipped beyond his fellows for social and political life—the admiration and despair of other nations. In the two cities of Oxford and Cambridge, isolated from the outside world among green lawns and mediæval buildings of wonderful beauty and charm, this educational process has gone forward for hundreds of years, and has given us the men of thought and action who have guided the destinies of the English-speaking races. The ineffable whole of college life seems to be made up of semi-seclusion in academic surroundings and of intimate and delightful association with other youth of the same age and with professors who are devoting themselves to scholarship and research.

There is no fear that in the future the larger colleges will absorb the smaller. Colleges will multiply in the future as in the past, and the more there are of them the better. It is impossible, and highly undesirable if it were possible, to concentrate the youth of our vast country into a few large col-

leges. Each college creates its own supply of students, and two-thirds of the students of all our colleges, large and small, come from within a radius of one hundred miles. As each student can as a rule attend but one college, each such college must be educationally as perfect as possible. If we reduce our independent American colleges to glorified high schools, as has been suggested, perhaps with questionable disinterestedness, by the presidents of some of the larger universities, we thereby cut off the majority of American students from a complete college education.

It is clear to me that the college of the future will be co-educational. There are in the United States 464 colleges for men. In 1870 one-third of these colleges admitted women; in 1880, so successful had coeducation proved itself to be, one-half had been opened to women, and in 1900 two-thirds of all colleges for men had become coeducational. At the present time, if we omit Catholic colleges, which in America are mainly training schools for priests, 80 per cent., or four-fifths, of all colleges for men teach women exactly the same subjects by the same professors in the same lecture rooms, and allow them to compete for all their degrees, prizes, and fellowships. There are in the United States also 13 separate colleges for women. In the year 1902 there were nearly 22,507 women studying in colleges for men, and over 5,549 women studying in separate women's colleges, or in all about 28,000 women college students. Altho there were in the United States two million less women than men, women formed about one-third of all college students. In addition to the 28,000 women students in colleges and graduate schools of philosophy, there were, in 1902, 9,784 women studying engineering, mechanics, agriculture, and other technical subjects in universities and technical schools; 1,177 studying medicine 218 studying pharmacy, 162 studying dentistry, 165 studying law, and 106 studying theology, or a total of 12,614 women pursuing professional and technical courses. If we combine these two classes of students we get a total of 40,676 women studying in the colleges and professional and technical schools of the United States, and the number of college and professional

women students is steadily increasing. Coeducation is the only economical method of educating all those women. It is impossible, even if it were not criminally wasteful, to duplicate in every part of the world colleges and universities for women; and not all the wealth of all the world can duplicate the few great scientific teachers that are born in any single generation. Experience proves that unless schools, and still more universities, are conveniently near, even boys go without a higher education. Unless in the future all existing colleges and universities are to become coeducational, unnumbered generations of girls must go without any education beyond that of the high school.

This is not the place to discuss whether or not the college curriculum for men and women should be the same. Women must decide this for themselves. Men cannot decide it for them. In a few years one-third of all the college graduates of the United States will be women, and we may safely leave the kind of education to be given their daughters in their hands. For myself I am convinced that college and school education should train the mind and faculties, and not fit directly for practical life, and that therefore the question as to whether a woman is to make beds, or a man to curry horses, after leaving college should not affect their education in college, but that all the more on this account should they be raised by their education above the petty routine of their after-life.

As the outcome of this discussion of the College this afternoon I have hoped that there might be some practical way suggested of banding together, for the collection of statistical and other information in regard to college education, those of us who are interested in maintaining and enriching the college as the source of all our culture. It would not be necessary to include in such an association all of the 477 colleges of the United States. It would be entirely feasible, and eminently desirable, to adopt, for example, some such clear and definite conditions of admission as I have indicated on pages 11 and 12 of my monograph on the *Education of women*. By applying four entirely impersonal and general tests I was able to

select the 58 best equipped and most advanced colleges of the United States. In such an association there would be no secret rites of initiation such as seem somewhat to interfere with the influence of the Association of American Universities; but each college would understand clearly why it was admitted, or excluded, and these very conditions of admission would tend to raise the excluded colleges to the admission standard. The colleges thus banded together could then mutually agree upon a systematic way of keeping, collecting, and publishing educational statistics. At present our college statistics are scarcely kept at all, or, if kept, are kept by such different methods that comparison is impossible. For example, no subject has been more hotly debated than the elective system, and the debate has raged during the past thirty years. Yet we have no satisfactory records of the subjects elected by students in different colleges covering a series of years, or even last year. The Harvard Exhibit at this Exposition contains a chart of electives chosen during a series of years, but there is no indication of whether the one required course in Freshman English inflates the bloated block of English electives; nor do we know whether other required courses affected earlier blocks. Chicago University frankly states that required courses greatly influence the tables of electives published in its reports, but we are not told how great this influence is. Cornell in its tables lumps Semitics, Greek, and Latin. Some other colleges put in one elective class philosophy and education; still others bibliography and elocution!

Such a college association as I have suggested would make it impossible for anyone ever again to base radical changes in college courses on mistaken facts, such as I have referred to in my brief discussion of the length of the college course. Such a statistical association would greatly lighten the labors of the overworked college president, who now has to collect his educational data as he runs,—and perhaps I may be permitted to add, as my own trade is also that of college president,—that it would also greatly improve the trustworthiness of the statistics on which he bases his educational reforms.

Even the few facts I have presented to you this afternoon have been collected at great expenditure of time from many journals and educational magazines published during the past twenty years. They are nowhere to be found classified and arranged. Indeed, if the present chaotic conditions in education are to continue, boards of trustees ought to be required by law to provide a trained statistician as the running mate of every college or university president before letting him loose on our educational systems.

Intellectual experiments are the most costly of all conceivable experiments, for they affect the mind stuff of the next generation. The decline or advance of the race is the issue involved. It is indeed terrible to think that changes of vast importance have already been made in the constitution of the American college, based on such incorrect assumptions and misleading arguments as those which I have attempted to disprove. This discussion has at least shown the need of collecting carefully and studying accurately such educational data as exist before we lay rash hands on the College, which, imperfect as it may be, has yet proved itself marvelously adapted to our needs in the past.

M. CAREY THOMAS

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