tion shall be individual and personal. Let us abate the evils of sport by fearlessly excluding the mob from our intercollegiate contests, and by rigidly limiting the number of those contests.

In any case, however, let us beware of those theorists who, in the name of what they call the American college, want to sunder afresh what the whole course of our modern American development has wisely tended to join, namely, teaching and investigation, the more technical training and the more general cultivation of our youth, as well as the graduate and the undergraduate types of study. I should abhor the name college if this mere name ever led us into such a backward course as some are now advocating.

Let me say, in conclusion, that, in agreement with Mr. Flexner, I myself believe that a large reform of our relations to the secondary schools, and especially an essential change in our method of college entrance requirements and examinations is called for by the present conditions. But over that whole topic, for my poor wits, the clouds of mystery still hang thick. I leave the matter, and all these now uttered prejudices of mine to the judgment of those who appear to think that they know.

JOSIAH ROYCE

AMERICAN COLLEGE EDUCATION AND LIFE[1]

THERE is evidently a feeling in the minds of the public that there is something the matter with our colleges. The more sensitive and alert educational authorities are likewise aware of certain defects, although they may not agree upon the causes. The more or less definite feeling is that college work on the one hand lacks intellectual seriousness, and on the other fails, somehow, to connect vitally with the present needs of society. Questions as to the length of the course, or the threatened partition of the college between secondary school on the one hand, and the professional schools, including the graduate school, on the other, are really subordinate to this broader question of seriousness and connection. If the college is really worth while we shall doubtless manage the external organization of our system so as to secure its continuance. If the conviction becomes general that it is a survival from the past rather than a useful institution for the present, the really vigorous and ambitious young men will pass it by, and the public will not care to maintain it for the benefit of those who wish merely to spend four pleasant years.

The two chief questions, I conceive, are the value of its intellectual ideals and methods, and the value of its corporate or social life at a certain period in the development of young men and women. I shall confine myself chiefly to the former, in the belief that the intellectual problem needs to be attacked first. The present paper aims to show (1) that the work of the colleges up to about twenty-five or thirty years ago fitted the social situation in both ideal and method; (2) that in the past three decades there has come to be a gap between theory and practise to which the colleges are only in part adjusted; and (3) that the solution is likely to lie through a reconstruction of the college ideal of liberal education under the influence of new vocational methods and ideals. In return we may hope for a gradual permeation of vocations and social institutions by the new spirit and method, which will complete the readjustment between college and life.

I. THE FORMER IDEAL AND METHOD OF COLLEGE AND OF LIFE

The intellectual ideal of the college has

[1] An address given before the Section of Education at the Baltimore meeting of the American Association for the Advancement of Science.

been that of a "liberal culture." This formerly meant three things: As contrasted with studies pursued for utilitarian ends solely or chiefly, it meant genuine intellectual interest. As contrasted with studies determined by the external requirements of future vocation, it meant study directed by the inner, personal valuations, aptitudes, or desires of the scholar himself. In both these respects it meant "liberation," and freedom—freedom for the life of the spirit as over against external necessities or constraints. And in the third place, as predominantly classical, it gave a glimpse of another and different civilization. To the boy or girl brought up in the meager and isolated environment of New England hills or pioneer farm it opened a vista. It gave the æsthetic value of detachment. Some of finer temper caught the full inspiration of converse and companionship with the great minds they came to know. In this sense it was really humanizing. And for ordering one's life and measuring life's values, how could one better gain a point of view from which to see life steadily and whole than in the perspective of the best that had been thought and said?

Now this general scheme of freedom and individualistic literary culture fitted admirably the religious, political and social ideals. For protestantism was religious individualism. Governments were supposed to exist to protect individuals in their natural rights. With practical economic equality, and in a rural, independent mode of life, freedom from external constraint seemed to be the chief social good. And as regards utilitarian demands, in spite of the hard conditions under which life was often led, it was a tradition from early colonial days which had not failed of reenforcement that man's life did not consist in his possessions.

The prevailing *method* of classical study, and of the mathematics and philosophy that went along with it, was also strikingly adapted to the professional training and general social order of the period. For the three professions for which the college prepared were occupied chiefly in deducing the consequences from fixed first principles. Systematic theology or grammatical exegesis was the minister's task in the seminary. The statutes, on the one hand, and past decisions on the other, with some fundamental conceptions of natural rights, were the fixed datum of the lawyer. The physician might be less certain of his ultimate principles, but whether "regular" or "homeopathic," his method was about as dogmatic; and as for society, its social, political and moral standards and categories were all supposed to be established. Even the movement for the abolition of slavery needed only the familiar conceptions of rights and freedom. The moral standards could still be regarded as unchanged. The scriptures and the Declaration of Independence could be appealed to, and although some went so far as to denounce the Constitution, American society as a whole strove rather to make its attitude seem to accord with the Constitution than to admit frankly that social needs had outgrown the Constitution. "Legal fiction," through which the courts like to preserve the semblance of fixed principles, could probably never have been taken so seriously, even by the law itself, if it had not suited on the whole the conservative temper of American society. On the one hand, therefore, the learned professions, on the other, society as a whole, had a relatively fixed system.

How admirably the classical and mathematical method of the time prepared the student for such a scheme of fixed conceptions! Syntax and prosody presented a perfect system, a logical whole, which

needed not to be investigated, but to be learned and applied. The future theologian learned respect for authority as he searched the scriptures of Hadley and Goodwin, or Liddell and Scott. In the statutes and decisions of Harkness the future disciple of Blackstone gained practise in tracing subjunctive or dative back to its constitutional rights and limitations. To watch for agreement in gender, number and case, remains, I am told by legal educators, an unmatched training for legal procedure. Finally, Euclid's axioms were the favorite symbol for the supposedly fixed rules of eternal right which every good citizen should learn to respect and obey. If there was any doubt as to this fixity the course in philosophy was calculated to remove it.

This exact adaptation of the method of college to the methods of the professions seems to account, in part at least, for the results achieved in the way of efficient training. It was maintained and the claim need not here be challenged, that the old college training gave power and effectiveness. Modern experimentation has tended to discredit the abstract conception of "power," gained once for all by some hard study, and then applied to any task that presents itself. But the old training was not isolated or in a vacuum. It was about as near the whole habit of mind and technique of method which later life would employ as anything that could be devised. It was thus essentially, although unconsciously, vocational in method, while "liberal" in ideal.

Both in its intellectual ideal of liberal or free culture, and in its method of instruction the college was therefore well fitted for its former place in American society. No wonder that the educational creator pronounced it all very good. And so long as the Sabbath Day lasted the system was beyond criticism.

II. THE PRESENT SITUATION

The variety of subjects now offered, and the elective system as the method of determining the student's course, are in part due to the activity of science in organizing new materials. With the wealth of resources offered by the natural and social sciences and by modern literatures it seemed impossible to restrict access to the city of the elect to the single straight and narrow path formerly followed. There must be gates on four sides instead of on one. But there has also been a social factor in the change, even if it has not always been consciously recognized.

Economic and social expansion has increased greatly the number of occupations for which trained intelligence is needed. Technical schools have arisen in partial answer to this demand, but the college has made its responses also through its variety of subjects with its freedom of individual selection. The progress of science, as represented especially in the graduate school, has no doubt in many cases given to subjects a specialized mode of treatment which is as technical in its way as the method which any professional school pursues. This apparently suits well the needs of one of the new vocations for which the college has come to be a preparation—that of the teacher. The young women who have come to form so large a part of our college constituency, and who for the most part have been looking forward to teaching, have found their needs well met. But for other occupations, especially for non-professional life, no such vocational connection has been worked out. Studies have become individualistic and detached in a far greater degree than was true of the old curriculum, which was really, though unconsciously, vocational.

But economic and social expansion has had another consequence for the college. It has increased greatly the number of

persons financially able to enjoy the best opportunities available. And whatever the attraction which literature or science may have for some of these intrinsically, or whatever the value a college degree may assume as a mark of social distinction, the real standard of value generated by this whole process, as Professor Sumner has pointed out, is that of "success." The studies of the college course seem to bear little relation to this ideal.

And this leads us to a broader statement. The fixed ideals and standards of the older society, which kept men in their place and held them to their work, have broken down. The churches are feeling the same difficulty. Men are largely absent from the pews. They, or at least many of them, are not taking the churches seriously. Many in former days were kept in the church by the general ideals of the community, and so in college many who had no absorbing interest in the work for its own sake nevertheless yielded to the spirit of college and society, and worked under the general idea that the discipline of the college course was validated in a superior law. Such students no longer feel any external pressure. Serious-minded men are groping for new conceptions in religion, economics, politics and law. But these have not been thoroughly enough worked out as yet to replace the old fixed control. Not only the flippant, but the earnest are more or less at sea as to standards and values. As Mr. Crothers puts it, even "the way of the benefactor is hard."

Some, indeed, seem to feel fairly well satisfied with the situation. President Eliot in his recent work on University Administration has a good deal of faith in the present system if there is a proper intrinsic relation maintained between courses, supplemented by a judicious arrangement of the time schedule. Some colleges have changed their schedules so as to require residence at the week end from those students who had fallen into the habit of spending their leisure half week in neighboring cities. But such considerations, as well as reports like that of the Harvard Committee, and the frank statements of students themselves, point to a real defect. Some would attribute the difficulty entirely to the presence of a frivolous class. But this is evasive. Many, if not most, even of this class, settle down to hard work the moment they enter business or a professional school. And even those who are not on principle averse to anything like strenuous effort feel a certain unreality in the whole situation. There seems to be not only the attitude of "detachment" belonging to the older conception of "liberal" education, but also an attitude which the æstheticians call "make-believe." Now detachment, or even make-believe, may be valuable as a factor in developing a broader, deeper interest, and a more significant, richer purpose. But four years of make-believe seems to be overworking this factor. The young men themselves are coming to think so, and the public at large, while taught to respect the wisdom of its educational experts, is beginning to ask questions.

III. SUGGESTIONS TOWARD READJUSTMENT

The general line along which remedy is to be sought for the present lack of seriousness and lack of connection seems to be *a reconstruction of the college ideal of liberal culture.* This promises to be brought about by a greater introduction of the vocational element and spirit into college work. And this introduction of the vocational into the liberal is being made possible and desirable because *the vocational is being itself permeated and transformed by the liberal.*

The reason for the old-time sharp oppo-

sition of the liberal to the utilitarian and professional was, as we have noted, to protect the intellectual interest and keep the self free from alien constraint or narrow bounds prescribed by vocational conditions. But a new face has been put upon this situation by the development which is going on in the industries and occupations, and in some, at least, of the learned professions. For the various occupations are being organized more and more along scientific lines; they are becoming permeated with intellectual and æsthetic interest; they demand of themselves a wider reach and stimulate a broader survey. In so far as they do this they break down the distinction between the liberal and the vocational. Not the way in which knowledge is to be used—much less the fact that it is not used at all—but the method and spirit in which it is pursued on the one hand, and its breadth of human interest on the other, make it liberal. Any study is liberal, if pursued in a scientific manner and given significance for human life. Such studies call out a widening self. In such studies the mind comes to its own. In such it gains power. In such it is no longer determined by needs or conditions foreign to itself. Rather it is using these needs and conditions as the most effective instruments for asserting itself.

Medicine is perhaps the farthest advanced of the professions in this respect. And the college studies pursued by the future teacher, which are professional so far as their future use makes studies professional, show the absurdity of the old distinction on the basis of utility, or non-utility. For Latin or mathematics as pursued by the future teacher of these subjects is probably more liberalizing than when pursued by those who do not expect to make use of them.

Nor has the process of permeating vocations with scientific interest stopped with the so-called professions. Modern commerce and industry involve the use of intelligence in ways that are properly scientific. And there is no reason why, if studied in their historic development and in their bearing on human welfare, they may not call out as broad and as human an interest as any other field of human activity.

This mutual permeation of the vocations by the scientific and of the liberal by the practical looks, indeed, toward a more effective and positive type of "freedom" than the older conception of the more romantic and negative sort, which sharply opposed the interests of the self to the sphere of its action. The older freedom from constraint corresponded to the formal freedom which was so important an element in political and religious liberty, and which was so prominent an ideal in the last of the eighteenth and during most of the nineteenth centuries. The courts by their distinction between law and fact, which tends to prevent the contamination of legal doctrine by recognition of actual conditions, maintain this theoretical freedom as a basis in many of their decisions. But social and economic facts emphasize that it is positive resources which give the only freedom that amounts to anything. Psychological analysis shows that only as the mind has both ideas and positive control of its instruments is it free in any considerable degree. The student is then free of his world, is fitted to lead a free life, is having a liberal education, in proportion as he is getting such control of the instruments of knowledge and such efficiency in dealing with his fellow men as makes him master not merely of his ideas, his emotions and his purposes, but of his world. The old individualism in education, as in religion, was largely to lose or hold off from the world in order to save the soul by culture.

The new scientific and social situation demands, and in increasing degree will make it possible, that the educated man shall control his world. And in so doing he will save himself. When this conception is embodied in the college there will be no lack of seriousness.

When the colleges have made their work once more a genuine and serious preparation for the new social situation they will be able to give society in turn the aid it needs in changing from the old fixed conceptions, and finding a new type of social order—an order that shall make larger provision for progress. This help, I believe, is to come through the influence of the newer experimental method which largely under the influence of our graduate study is coming to leaven the best work in all subjects. It has its fitness for our new conditions as conspicuously as the older method fitted the conditions of a relatively fixed status.

The laboratory method of studying the sciences began to gain ground in the colleges at about the same time as the introduction of the elective system. It has been strongly reenforced by historical or genetic conceptions given prominence by the doctrine of evolution. Although still very imperfectly carried out, it is replacing more and more the scheme of fixed conceptions and deduction from established rules which constituted the older syntactical, mathematical and moral systems. If this can be carried over into professional conceptions and social organization there will be once more a close connection between the college and society. Medicine and philanthropy have already made notable progress. Theology and religion are feeling the need of reconstruction. The courts are perhaps necessarily the most conservative elements—unless possibly we except schools and colleges—but when legal education has felt fully the force of genetic study we may expect that both criminal and civil justice will consider in greater degree actual human and social conditions in controlling human relations.

And if the established professions need a new method to enable them to fulfill their vocation in the society that is to be, business and industry need the aid of scientific method and standards to make them professional in the true sense. Considering these occupations as non-professional, we have left them no test for the success that every normal man wishes to secure, but that of economic gain. And since economic gain may result either from service or from exploitation, our educational theory and training have lent no such powerful support to the conception of public service through one's vocation as the scientific standards of law, medicine and teaching afford members of those professions. As President Eliot has pointed out, this purely financial standard has not proved a conspicuous success even from the standpoint of efficient management of business enterprise. Is it not desirable that education should try to introduce other and more scientific standards? And is it too high-flying an optimism to hope that the time may come when it will be considered as unprofessional to manage a country's industries or transportation or banking with an eye principally to financial gain as it now is to practise medicine with such a standard of success? The scientific and the ethical here go hand in hand.

The professional schools themselves are not likely to embody this method in its full significance in their work. The function of the college intellectually is to make this the dominant temper of the student.

And the second intellectual function of the college is to give material for the future citizen. First of all, he must know

society. The social sciences ought to be strongly developed. But training for a democratic society is not limited to a peculiar subject. Nothing human is foreign to the purpose of the college. But it is a fair question whether literary study may not be for the college less an end in itself and more an avenue through which one comes to know and sympathize with all sorts and conditions of men. And even the natural sciences need not hesitate to let their bearing on human welfare appear.

An experimental method and a social standpoint are, I conceive, the two respects in which the college should perform its office of liberal training in a way suited to our new conditions.

In view of the fact that women now form so large an element in our colleges, it may be permitted to point out some special applications of these considerations to woman's education on the one hand, and to the determination of woman's place in the social order on the other.

College education for women has thus far followed essentially the lines laid down by the general system already in vogue. "Equal opportunity" was the watchword at first, and it is probable that any differentiation in kind might have been regarded as involving inferiority in standard or value. "Woman's work" is still, it must be confessed, often treated by the world in general as implying a depreciatory estimate. As already noticed, a large number of women, looking forward to the occupation of teaching, have found the existing courses largely vocational. For this, or other reasons, the lack of intellectual seriousness has thus far not been so much in evidence as with the men. But as an increasingly larger proportion of the women students will not become teachers, the question of connection between college work and after life is likely to become more acute. The need for introducing into college more material of a vocational sort, and conversely of permeating woman's vocational work of all kinds with a scientific method and a broadly human interest, is likely to become increasingly evident. The work of the woman in the home has lagged far behind the occupations of men in point of organization and of the use of scientific method. An educated woman is apt to feel, vaguely, that the whole household life—once the center of all the industries, and the place where discovery and invention had their chief seat—has now been left behind in the progress of civilization and is no longer a field for the exercise of intellectual powers of the highest order. This inevitably tends to depreciation of such occupation, and to strain in the family life.

Some would find the remedy by purely sentimental and emotional exaltation of home life. They would in effect continue the separation between the scientific spirit and the home. Is it not more promising to work, rather, along the lines suggested in the case of men's vocations, and try to liberalize women's vocations by scientific methods and a more broadly human standpoint? It is not yet sufficiently recognized, for example, that in modern city life the home is virtually coterminous with the city. The sanitation, the food supply, the health of the home are now dependent on municipal conditions; the education of the children, the influences that surround them, the ideals that influence them are reached chiefly by forces that are civic and philanthropic in a broad sense, rather than domestic in the narrow sense. And further, while the organization of production, the conduct of litigation, and various other traditional vocations are likely to remain predominantly in the hands of men, it is increasingly apparent that as wealth increases beyond provision for bare necessities woman becomes the more im-

portant factor in determining the course of consumption. Vocational training for woman will then be conceived broadly enough to enable her to plan not only economically, but with taste and refinement for those satisfactions that are permanent and genuine, and also with intelligent judgment for those that make for the larger social welfare.

And the final application of the experimental method in this connection lies just in the determination of what women's vocations are ultimately to be. The older society had no doubts. The religious, economic, political and social status of woman could all be deduced with perfect exactness. It was as easy as the agreement of a verb with its subject. The present equilibrium is unstable. Is it not a scientific method to work out the problem with careful reference to the new conditions as they emerge, rather than to decide by past history or fixed conceptions?

In conclusion I may barely hint at a question which no doubt arises as to the bearing of this whole discussion on the college as a distinct organization. If professional education is to become liberalized, what need of the college? And if the spirit of investigation is the main factor, why again the college? Why not the university joined directly to the secondary school? In the long run I think this is likely to depend on the need of a factor which has been barely referred to above. Effective education depends in part on a scientific factor, but there is also a personal factor. One must know his fellows and how to cooperate with them. This is increasingly important with the growing complexity of society. And this efficiency in dealing with others is not easily secured in professional or graduate school where the emphasis is on subject and method, and the life is individualistic. If the college can maintain a corporate life in which knowledge is vitalized, in which there is actual give and take, actual sympathy and friction, active interchange not only between mind and mind but between will and will, then it will find its own place, and live secure.

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THE PROPOSED HAWAIIAN MEETING IN 1910

The action taken by the general committee of the American Association for the Advancement of Science at the Baltimore meeting in again unanimously re-affirming a resolution adopted at the Chicago meeting of a year ago to the effect that it was desirable to hold a meeting of the association in Honolulu during the summer of 1910, provided suitable arrangements can be made, is quite generally regarded as a flattering acceptance of Hawaii's cordial and urgent invitation.

All Hawaii is united in the desire that their invitation be extended to each of the individual members of the American Association for the Advancement of Science, and of the affiliated societies, and to their families and friends. Keen delight is expressed at the prospect of welcoming the scientific men of America to the "Land of the Heart's Desire," for such a meeting and outing. Hawaii is prepared and willing to do all in its power to make the meeting a large, notable and important gathering not only of the scientific men of America but of the other countries that border on or have possessions in the Pacific Ocean. To this end elaborate preparations are being made for the entertainment of all who may attend.

A strong local committee has already been formed. They have printed and ready for general distribution a number of pamphlets setting forth the things prospective visitors will want to know about Hawaii. The probable cost of the trip from the east will not necessarily exceed $300. An especial booklet emphasizing the desirability and advantages of Honolulu as a summer meeting place and the things of interest to be seen by the scien-