

grave and circumflex accents, or in German with its umlauts; but to deal in facts and not in theories, during the past month I have had personal knowledge of important telegrams and cablegrams that had been transmitted in this international language.

International congresses on various subjects are using Esperanto, for statistics on which highly important point I need only refer to page 478 of *SCIENCE* for October 8; and the Esperantists themselves have tested this language in five successive international Esperanto congresses and have given overwhelming proof of its practicability. The Fifth Esperanto Congress, held last September in Barcelona, Spain, was attended by 1,300 delegates in spite of the unrest prevalent in that city. The sixth congress will occur in the United States next August and will bring proof to our very door, if it be that we still need proof, that the language is musical, remarkably easy, and a success, and after all the main point for an international language is that it should be a success.

Ido, Ildo, Purified Esperanto, Esperantido and Esperido, as it has been variously called, on the other hand, as far as statistics have been obtainable, has less than thirty adherents in the United States, in which list for the present I include Professor Jespersen. The following of Ido in European countries I understand to be proportionately small. It has a few readers and grammars and textbooks and much diatribe against Esperanto, but no literature whatever. It has ten periodicals, including both propaganda and other magazines, a number of which, while attacking Esperanto, have been printed partly in Esperanto in order to reach the public. In this list of ten I am including one little sheet published in the United States and designated a quarterly, though its first and latest issue appeared in April of this year. Ido has had no congresses or similar assemblies before which this proposed system for international communication could be tested. But in addition to returning the Scotch verdict of not proven to the Idists' claims for recognition, I wish to advance certain reasons why I believe

Esperanto to be superior in construction to Ido, Ildo, Esperido, etc.

1. Esperanto is more musical, for in cutting out the six supersigned letters Ido and its related systems have been forced to reduce the sounds also; thus a so-called "purification" has resulted in monotony.

2. Esperanto has definite rules and no exceptions, it is in short a logical language, while there are many exceptions recognized as proper to the rules of Ido or Purified or Simplified Esperanto.

3. Esperanto is the most truly international language in several important details, and therefore may be most easily learned by all civilized races, while Ido, or Simplified Esperanto, with its harsh Anglo-Saxon pronunciation of the letter *j*, and its fixed Franco-English word order would prove troublesome to most Europeans. KARL F. KELLERMAN

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COLLEGE SOLIDARITY

WHEN ideas that have been in the air are, as it were, precipitated by the utterance of an eminent man in an authoritative position, they suddenly become fructifying and productive of both wheat and tares. If, therefore, solutions both profitable and unprofitable to the college problem were numerous before President Lowell's installation address, they may be expected in increasing numbers to follow his clear and impressive presentation of the needs of American colleges. And indeed, the greatest direct benefit to be expected from this conspicuous discourse must be the incitement it will prove to all intimately interested in our colleges to formulate and publish their convictions as to the best means of meeting needs widely recognized and admitted.

There can be little question that President Lowell is right in his opinion that the passing of the common habitation made necessary by the increased number of students, and the passing of the common curriculum attending the introduction of the elective system, have resulted in social and intellectual disintegration. Further, it will be granted that the old

complete college "solidarity" belongs to the old order and that we shall now have to be content with the intellectual and social cohesion of groups of students. The effectiveness of the method he has suggested for reaching this end is, moreover, reasonably sure. That the segregation of the freshman in class dormitories and dining halls would result in an intensification of class spirit is patent. A class thus centralized and made aware of itself during its first year, would inevitably gain something of social unity and identity. But would the gain be worth the cost to the college and to the individual?

In calling attention to the great educative value of intercourse between classmates far called from all the corners of the country or of the world, Cardinal Newman noted, over half a hundred years ago, that this was not due entirely to the students of the university, but was largely dependent upon the *genius loci*. "Independent of direct instruction on the part of superiors," he said in the sixth discourse in "Idea of a University," "there is a sort of self-education in the academic institutions of protestant England; a characteristic tone of thought, a recognized standard of judgment, is found in them, which, as developed in the individual who is submitted to it, becomes a two-fold source of strength to him, both from the distinct stamp it impresses on his mind, and from the bond of union which it creates between him and others." In several of our American colleges such a spirit is already appreciable, and it is a recognition of its value that influences men and women to send their sons and daughters across the continent, if need be, to our long-established colleges when there are colleges at their doors offering similar academic courses under the direction of men of the highest scholarship, when economy and family affection, and all tangible arguments are in favor of the home college. It is for this that sons are dedicated from their birth to Yale or Harvard, and daughters to Vassar or Wellesley, irrespective of transient administrative policy or the individual members of the teaching force. This subtle but precious power is imperiled by the

segregation of the freshman class. If successive incoming classes acquire solidity before they have been subject to the atmosphere of the institution, while they are yet unaware of its standards and traditions, they must soon become incapable of transmitting or responding to the cultivating influence of what is now considered the permanent and inherent spirit of the place, but which must be radically changed in the course of a few college generations whose classes crystallized in the freshman year. To make more effective the influence of this fine, esoteric force in the college world is the real object of gaining solidarity, and if it be lost our solidarity will be to little purpose.

Nor is this the only objection to the segregation of the freshmen. Inexcusable as the practise of hazing seems, it is not with its purpose that we quarrel. No one can have had much to do with young people in America without appreciating the fact that for the sake of the community and for their own sake, many of our youthful collegians should be taught humility of spirit. The isolation of the freshmen would interfere with the accomplishment of this purpose in the most objectionable way. The most natural way to teach freshmen that they are not of so much importance to others as to themselves is to submerge them in a community of older college men. Finding themselves a submerged fourth in a community of men more at home in the college world, they learn to take a subordinate part in the discussions, to listen to the opinions of others, sometimes to accept them, and even to entertain an opinion without expressing it. The self-centered and contentious are snubbed into right-mindedness before they know it. They learn self-control and discrimination. They come into contact with the older men naturally and learn from them. When they are set apart the upper classmen seek them out chiefly to "rush" them for fraternities. The result is that what was a superficial defect of character is driven in, becoming perhaps less manifest but more deeply rooted.

The presence of a few upper classmen or instructors in a freshman dining hall or

dormitory, can not be counted on to offset the evils of segregation. The Edward Bowens and John Henry Newmans, natural leaders of youth, are rare in the educational world, and too often the desire to influence young people and the power to do so are not coexistent. Many of the instructors by whom students desire to be influenced, whose influence they would not resist, wish after class hours are over to live a life apart from undergraduates. Those who, prompted by the missionary spirit or the need of the remuneration offered for this service, accept such positions, are often merely tolerated, and prove a subduing influence, perhaps, but seldom a vitalizing one. Even where intelligence and good will are forthcoming, divergence of interests makes it difficult for an instructor to discuss in a stimulating manner a question brought from the class-room by an interested student. Occupied in his special field, he remembers dimly the political economy, the literature and history, of his college days. Conclusions previously reached may be carefully registered in his brain and these he can pronounce in the dogmatic manner most fatal to discussion; but the facts which led him to his conclusion, and through which the student must be led to it if he is to reach it at all, he has long forgotten. He can not recall the cogent reasoning he employed to convert his classmates to bimetallism when he cast his first vote; he does not remember why he thought Maggie Tulliver nobler than Tom, or on what grounds Jefferson's loyalty to the Colonial Army could be shown to be no violation of his duty as governor of Virginia.

To criticize with confidence an offered solution is a much simpler matter than to offer a solution not open to criticism, but I believe the natural and right way to insure solidarity for large groups of students is through our academic departments rather than through their dormitory life. The only solidarity that is worth working for is one that touches the social life of the students, to be sure, but one that touches it through academic interests—an indigenous, academic solidarity that grows out of the nature of the college and is not in-

dependent of it and merely the result of common youth and humanity and propinquity. In the first place, are modifications of the elective system that are responsible for the intellectual disintegration, and so partly for the social, possible?

If we were to take practical measures toward developing the individual student "in his strong and in his weak points," toward training him to know "a little of everything and something well," we should probably impose some restrictions on the election of courses. We should require, perhaps, the selection of a major subject to be studied through the four college years; we should require in addition the election of such subjects as would insure breadth and diversity of knowledge or train the various faculties of the student. A course in English might be required of all freshmen, a science of all sophomores, an introductory course in philosophy of all juniors. Many of our colleges have, in fact, already established just such requirements. This is one step toward the desired end, in that it provides for all members of the class, year after year, a common academic interest and background of knowledge, and constantly brings together large groups of members of that class for lectures and examinations.

Such an arrangement has in it, moreover, opportunities, as yet, so far as I know, unexploited, for what I may call departmental consolidation. Presupposing the existence of this regulated elective system, every student in college must be closely identified with some one department. During his four years' work in the department in which he has chosen his "major," he must come to know and to be known by the head of the department. Thus, every student would come in contact with one of the first-rate members of the college faculty, and their intercourse would be along lines of real interest to them both, where each would be at his best. If, further, the student were required to consult the head or dean of this department with reference to the election of other courses, and if this head or dean were the one to whom his grades in other courses were reported and to whom he must account

for all academic failures, if, in short, he *belonged* to the department in which he took his major subject and felt himself under the supervision of one officially and personally important to him, he could scarcely maintain an attitude of irresponsibility toward academic work.

The making the department the unit of organization would serve not only to bring into more vital relationship the student and teaching force; it could also be made a strong agency in the bringing together students of like interests. It would be a simple matter to have students belonging to the same department take their required work in other departments in the same divisions. That is, members of the zoological department would recite together in required freshman English classes, in required sophomore mathematics, and so on. For elective courses such an arrangement would be difficult to manage and undesirable. The major course and the required courses would sufficiently bring together the members of one department, and the elective courses should give an opportunity for them to become acquainted with the members of the other departments of the college.

It would be at the discretion of the dean of each department to do as much as he wished toward bringing about inter-class sociability within his department through receptions and lectures for all its members. But even should he do nothing, the social integrity of the department could be depended on. As has already been shown, the acquaintance of the members of each class with each other would result from the mechanical fact of common class divisions for recitations. Departmental publications, "shop" clubs, and so on, would bring the members of the four classes together. Departmental pride would come into being, and the older men in the department would take a friendly interest in the new recruits. Having common academic interests and common friends, members of one department would gravitate towards common lodgings. Under such circumstances *esprit de corps* would promote good fellowship within de-

partments, and wholesome rivalry between them.

This plan of mobilizing the forces for culture in our colleges through the academic departments is open to the criticism that it will result in early, and so mistaken specialization and make students narrow. It is also open to the objection that it will greatly increase the burden of the head of the department.

Safe-guards are provided against extreme specialization and consequent narrowness in that a diversity of work and contact between the members of the several departments, are provided for. Even slight contact between students of centralized and developed interest would be more fruitful of reciprocal interest in the personality and in the work of those concerned, than is the helter-skelter mingling of students too neutral, because of diffused interests, to be felt.

Escape from mistaken specialization would of course be possible through transfer from one department to another. There would, however, if the departments were what they should be, be comparatively few of such cases. It is true that students are unable to tell at the beginning of the freshman year for what work they are best fitted; but this is also true for many now at the close of the senior year. In fact it yearly becomes more difficult for me to doubt that "predestination," so far as work is concerned is largely a matter of accident. I once put to Edison the question, "Had your interest chanced to be directed along some other line, do you think you would have succeeded so well?" His reply was, "Hard to say—I should have made an eighteen-hour-a-day try at it, anyway." And for most of us it is the "eighteen-hour-a-day try" that counts more than inherent aptitude. The marked success of workmen engaged entirely without selection, brought William Morris to this conclusion in a field in which natural ability is supposed to be most indispensable. With the rank and file of college students, as with the rest of mankind, want of interest is, in general, due to want of understanding. With the vitalization of academic work that the proposed plan seeks to effect, no student

would be allowed to graduate without a good understanding of some subject; and most of us would concede that it is worse for a graduate to be interested in nothing, than it would be for him to be interested in a subject in which he may not have been intended to be concerned.

As for his future, it will be possible for the student with capacity and opportunity for the highest personal development, to choose vocational work along another line, and his enthusiastic devotion to one subject and the sense of power that its mastery has given him will be an incentive to determined work in a new field. On the other hand, the student who lacks either opportunity or desire to change, will come out at a higher point when he has completed his professional course, than he would had he not acquired in his undergraduate years the power to do steady, intense, purposeful work.

For the headship of departments exalted almost to the position of constituent colleges of a university, it would be necessary to find men of liberal education as well as sound scholarship in a single field, men who could give character and vitality to a department, who could make themselves felt through their instructors, who could impart to students an enthusiasm for work so deep-seated as to enable them to withstand the lure of other departments when interest in familiar work was brought into competition with the charm of initial knowledge in fresh fields. To find the right men for the top places would be difficult, but it is not so impossible as to provide dormitories with successful proctors of the elder-brother type. The head professor would work under conditions most favorable. He would have large authority. The student coming to him in the spirit of willing discipleship predisposed to find his chosen leader wise and right, would receive instruction with open mindedness and respond quickly to suggestion. By limiting his teaching to the students belonging to his own department, the professor could know the stimulus of working in an atmosphere of scholarly concentration with men seriously sharing his interests, an

atmosphere sure to promote that most elevating of human relationships, the impersonal comradeship of those who have sunk sense of self in a common quest. Even granted added work for the head professor, he might in the end count himself a gainer through his enlarged responsibility.

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QUOTATIONS

SECONDARY EDUCATION IN AGRICULTURE IN THE UNITED STATES¹

AGRICULTURE, including horticulture and forestry (and it is well to bear in mind that where I use the term agriculture I would use it in the ordinary sense to include the whole subject), should be a regular part of public secondary education; (2) the unity of the educational system should be maintained, but there should be sufficient elasticity of curricula to meet the various needs of the people; (3) the standard curriculum of secondary schools having agricultural courses should conform in a general way to that adopted for the general school system of the state; (4) the standard agricultural courses, whether in the ordinary high schools or in special schools, should not be narrowly vocational, but should aim to fit the pupils for life as progressive, broad-minded and intelligent men and women, as well as good farmers and horticulturists; (5) the standard courses in agricultural secondary schools should be so organized as to form a natural and proper preparation for entrance to agricultural colleges.

The conditions of entrance requirements to colleges are, in my judgment, far from satisfactory. It is not likely that we have reached the ultimate plan for the preparation of the great mass of students who in the future will desire college courses. It seems certain that when the so-called vocational subjects are properly organized and taught in the second-

¹ From an address by A. C. True, director Office of Experiment Stations, before the Association of American Agricultural Colleges and Experiment Stations at Portland, Ore., August 18, 1909, and adopted by the association as containing a statement of principles which it approves regarding secondary education in agriculture.