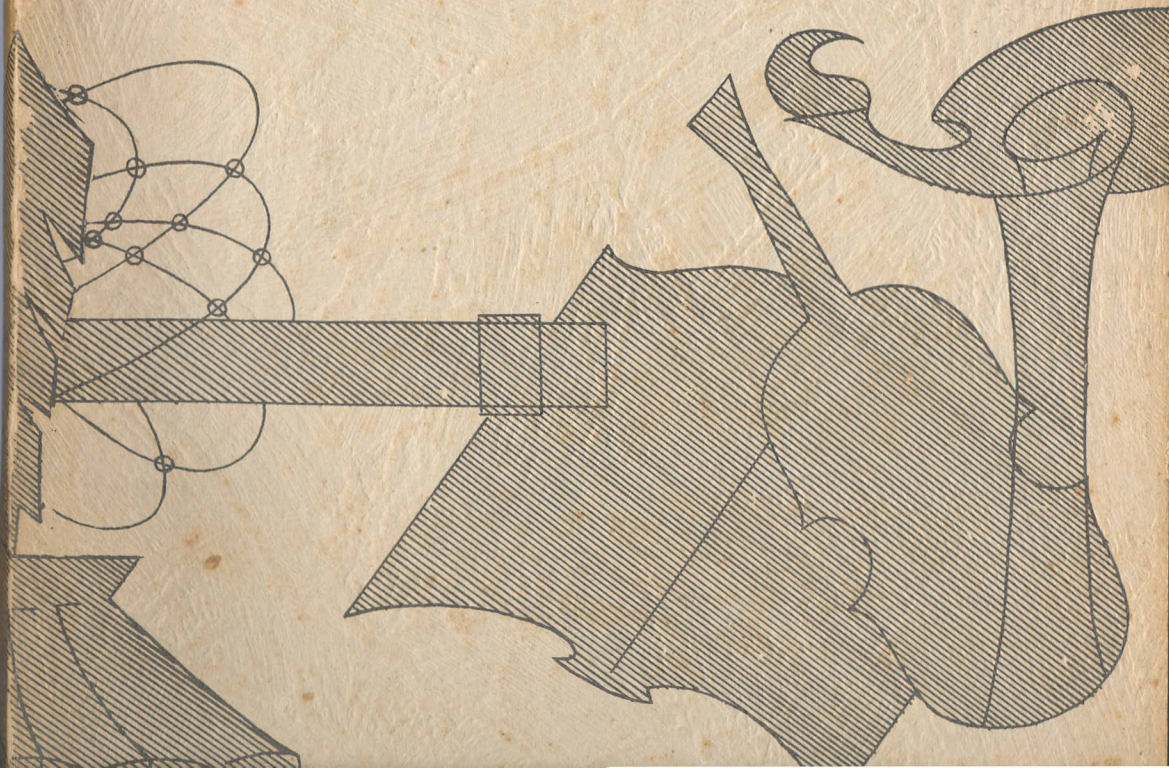


# University College Journal

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## GENERAL EDUCATION IN THE UNIVERSITY OF THE PHILIPPINES

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THE University College was created in 1960 to take charge of the program of general education and of other subjects for the first two years of university studies. It formulates, implements, and enforces the objectives and policies of the program, and coordinates the offerings and activities involved with the end in view of assisting in the establishment of an educational system consonant to our heritage, adapted to present conditions and needs, and directed to healthy growth in the pursuit of excellence.

Formerly, the only learning experience common to all students was provided by English, Spanish, the study of the life and works of Rizal, and the non-academic requirements (physical education, military science or euthenics). Now, irrespective of his eventual specialization every student follows a basic curriculum for general education, except in instances where substitution of a few subjects is allowed. The general education subjects make up the common core for the first two years of college work, constituting about three-fourths of the academic load, the remaining fourth being devoted to the preparatory subjects which are prerequisites for specialized studies in the various major fields.<sup>1</sup>

<sup>1</sup>The basic curriculum of the University College, prescribed to students since June 1960, follows

### FIRST YEAR

<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
English (I, II, III) ....	9	English IV (Studies in the Content & Style of the Prose of Great Thinkers) .....	3
English I (Freshman English)* .....	3	Philippine History & Institutions I (Pol., Soc. & Cult. Dev. of the Phil.) .....	3
English II (Freshman English) .....	3	Social Science I (Eastern Thought & Institutions) .....	3
English III (Introd. to Lit.) .....	3	Spanish I & II (Elem. Course) .....	6
Mathematics I* (Fund. of Arith., Algebra & Trigo.) .....	3		
Speech I (Fund. of Speech) .....	3		
	<hr/>		<hr/>
	15		15

### SECOND YEAR

<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
Humanities I (Introd. to the Human.) .....	3	Humanities II (Read. in Spec. Thought) ....	3
Natural Science I & II (Foundations of Phys. & Biol. Sc.) <sup>a</sup> .....	6	Social Science II (Western Thought & Institutions) <sup>b</sup> .....	5
2 or 3 electives <sup>c</sup> but not exceeding a total of ..	9	2 or 3 electives <sup>c</sup> but not exceeding a total of ....	9
	<hr/>		<hr/>
	18		17

\* Upon the recommendation of the Chairman of the Division, the Dean may require longer period of class session of students who need intensive study of the subject.

<sup>a</sup> For students whose majors belong to the Biological Science disciplines or whose curriculum calls for definite courses, belonging to the biological sciences, to serve as prerequisites to higher courses required in the major disciplines, the elementary courses in Botany and Zoology may satisfy the requirements of Biological Science.

For students whose majors belong to the Physical Science disciplines or whose curriculum calls for definite courses, belonging to the physical sciences, to serve as prerequisites to higher courses required in the major disciplines, the elementary courses in Physics, Geology, and Chemistry may satisfy the requirements of Physical Science.

<sup>b</sup> Social Science II may be substituted by six units from any two disciplines out of Economics, Political Science, History; Sociology, Anthropology, and Psychology

<sup>c</sup> The electives should be determined by the major disciplines or professional colleges.



The common educational core allows the student to postpone until his sophomore year his choice of a major field of study, or to change it without too serious a loss of applicable credits. This flexibility provides students with the opportunity to explore broad areas and to try to discover his interest and aptitudes before committing himself to a definite field of specialization. This is of practical significance if it is realized that few students can truly make a realistic selection of his professional major during his freshman year. It does not follow that the general studies do not constitute preparatory training for specialization; for general education is believed to be the best preparation for specialization. Nor, as erroneously conceived by some, is general education designed to correct the defects of high school instruction. The rationale for the existence of the program rests on different grounds and is best understood against the perspective of the revolutionary developments in educational philosophy and practice going on in many countries.

#### RATIONALE OF THE GENERAL EDUCATION PROGRAM

In the past, some professional courses such as engineering, agriculture and preparatory medicine, were notably deficient in general studies. Of the many factors responsible for the deficiency, the most important was the insistent pressure from specialists for more specialization and preparation for specific jobs, a consequence of which was the fragmentation and proliferation of subjects. General studies were either squeezed out by these subjects or could not find room in the already crowded curricula. An awareness of the need for liberalizing all professional curricula had, however, been building up for years. Finally, after prolonged study and deliberation, time and place were found for the implemen-

tation of a major educational reform, i.e., the inclusion of a core of general education studies in all curricula.

The program of general studies is intended to give all students a strong basic foundation and to develop certain intellectual skills which would serve them better for specialized studies than a bundle of preparatory technical courses confined to a narrow field of specialization. The liberalization of the curricula does not consist merely of large dosages of superficial general information or the development of skills and techniques immediately useful for specific situations and the mechanical requirements of a job. Basic to the concept of general studies is the development of effective use of language, reading with understanding, analyses and integration of materials into knowledge, and ability to make sound decisions. The development of skills rates priority, and for this reason, the study of English is given primary consideration. To provide the background of knowledge required for the learning activity, skills development is accompanied by the acquisition of knowledge in various areas, with emphasis on the understanding of present and past cultures, the history of the society, and science as an intellectual process. For example, in many of the subjects, the study is directed to the consideration of the motives, ideas and beliefs which have found expression in human institutions and in the great masterpieces reflecting man's experience and his creativity in various fields. The student is led to appreciate and understand man's strivings and accomplishments and to perceive the work that remains to be done. In science, the study is centered on the appreciation of the nature and functions and the effects of science on man's affairs.

Materials are carefully chosen to cover, within the limits of manageable operations, what are considered as fundamental or basic skills and knowledge which all citizens should generally possess to liberate them from ig-



norance. The terms "basic," "general," and "liberal" are used more or less interchangeably to describe this kind of education which is now generally accepted as requisite to professional competence and enlightened citizenship and as conducive to the persuasion favorable to purposeful leadership and to the fullest realization of man's potential. Inherent to the concept is the awareness of the fact that education is a lifelong process. A college education is satisfactory only if the graduate can continue to learn effectively and with imagination. An intrinsic phase of the training is the encouragement of the will to develop and to pay for the costs demanded by excellence. It seeks to promote an attitude toward learning which breeds respect for the power of the free and disciplined mind and cultivates certain traits and habits which foster the acquisition of a discriminating sense and civilized feeling. The student is led to see that an educated man is marked by a general cultivation, by certain scholarly traits, and by an attitude toward learning and the process of thought, rather than by the possession of a fund of general information and the mastery of a set of technical skills.

The broadening of education may also be considered as a reaction to the professional training plan characterized by narrow and excessive specialization which engendered wasteful proliferation and fragmentation of subjects, favored the restrictive compartmentalization of knowledge and intellectual pursuits, and produced technical men and specialists found wanting as professionals and as citizens. This type of training program, in existence for decades, was initiated by technologists and educationists who demanded more and more graduates trained in methods for specific jobs and crammed full with technical information. The shift was abetted by the apathy and neglect of the liberal arts faculties themselves, most of whom joined the ranks of the specialists for very practical reasons. University policies were geared to the

support of specialized studies and to spectacular research and development projects. Administrators, bowing to the strong economic and social pressures and aware of the value of imposing physical structures and the dramatic results of research and developmental work in increasing enrollments and obtaining aid and benefactions, leaned very heavily toward the specialists in the distribution of allocations and the dispensation of honors and material rewards. Even the plans and policies worked out by the faculty followed the pattern. The fruits of the activity of the specialist are easily observable and are often spectacular—even glamorous. Teaching, on the other hand, is harder to evaluate, for many of the results are intangible and certainly far from colorful. Recognition of the shortcomings and the shortsightedness of the policy was long in coming.

General dissatisfaction in recent years called for a searching study of the situation. It is now a proven fact that the liberal arts colleges, particularly the small ones dedicated to general studies, have produced far out of proportion to their enrollment the finest scholars and scientists, the best business leaders and administrators. Reports from research foundations, government, and industry support the observation. Industrial leaders have been particularly vocal in their demands for broadly trained men.

Undeniably, the close and live relationship between students and professors and the stimulating atmosphere in small colleges explain to some extent the virility and strength of their academic programs. Other factors, such as close supervision over students and sound management easily maintained in small closely-knit organizations, contribute to their success. The explanation, however, seems to be found mainly in the very nature of general studies. Industry, for example, found the graduates of colleges with general education not only easier to train,



but also more capable of adaptation and growth. Observations like these have caused the tremendous resurgence of interest in general or liberal education and have led to the introduction of educational programs geared to the needs and problems of modern society.

The curriculum of the University College reflects the philosophy of the University of the Philippines on the issue. It takes a definite stand for general education. The curriculum can be considered as a balance between the free elective system and the rigid curriculum of specialization. It avoids the proven shortcomings of the former while affording what most educators now believe to be the suitable foundation for specialization. Generally, if the average student is left to himself, he will tend to choose the snap courses requiring no discipline or work. The failure of the free elective system is proof of this. Educational freedom can be prostituted to mean the right to take subjects even if they do not educate. Experience, at least, dictates that the subjects must be definitely prescribed. Opinions will, of course, vary on the prescription. Most educators agree, however, that the subjects should not be of the type usually identified with training for a vocation or for adjustment to life. Nor should they be those designed to turn out specialists of narrow interests. The program of studies should produce men of cultivation with trained disciplined minds, who can rise to cultural appreciation and be capable of putting sense into life and living. These can be expected to bring more material welfare to society and to themselves as specialists and professionals. Men like them, who believe in human dignity, and individual worth, and in the tremendous capacity of man to advance through reason, are the more valuable assets of society than the narrow specialists or the products of vocational or life-adjustment programs. The making of such men is, in fact, a primary function of a university. General education is oriented to this end.

The establishment of the University College, with general education as its central consideration, expresses the faith of the University in time-honored ideals and shows its awareness of the need for revitalizing traditional education to make it relevant to present time and circumstance. General education takes its place, equal in importance, alongside the two other major concerns of the University, i.e., professional and specialized studies, and research.

#### TOUCHSTONES OF THE GENERAL EDUCATION PROGRAM

It should be thought-provoking at this point to restate some ideas and to present others which might be of relevance in viewing the present program in perspective, in considering the worthiness of steps taken or proposed, and in understanding the attitude of teachers toward teaching.

1. In this age of rapid change, with knowledge flowing from all frontiers in a growing flood which overwhelms students at all levels, it is patently impossible to teach everything in any specific area and it has become increasingly difficult to predict the job requirements of tomorrow. The teacher and the student face problems of choice of increasing complexity and magnitude. To aggravate matters, the rapidly changing and expanding needs of society demand the services of well-trained and educated citizens in greater numbers and as fast as they can be turned out. The need for drastic changes in educational philosophy and practice presses on educators. Many new measures are being introduced. Research goes on apace and the ferment goes on unabated, as well they should.

2. The most important intellectual assets of society are the fund of knowledge and the disciplined mind.



Progress demands the continued creative productivity of individuals. Creative achievement is an individual activity. So is learning. The educational process must provide the situation and the conditions be adopted to man's instincts as an individual, and must promote the free and untrammelled activity of the mind.

3. Education, to keep pace with the changing and expanding needs of the society, should produce an intelligent citizenry and prepare men for competent leadership. It has to raise the level of intelligence of the public if it is to elevate its standards; for the level of public opinion necessarily sets limits on the modes and the contents of educational programs. The student must be taught to use his mind effectively, to learn by himself effectively and with imagination and thus be able to enrich his life and become a more useful and responsible citizen.

4. The foremost practical problem in the educative process is not the increase of resources and facilities but the generation of the will to learn and of the passion for hard intellectual effort. This can well be one of the most important problems of society for it is directly related to the harnessing and directing of the vast stores of human energy as yet very inefficiently utilized. This problem, of course, is complex, rooted in cultural values and affected by social factors and national policies. But the teacher, in his own way, must concern himself with it. For learning is largely a personal affair, and without the will to learn, nothing can be accomplished. He must work at attitudes as he teaches skills and imparts knowledge.

These are among the ideas which have oriented the organization and administration of the general education program. They will continue to guide future developments.

## ACADEMIC CHALLENGES

Certain conditions must necessarily obtain or else the general education program—and for that matter, all university activities—will fail. These apply more immediately and critically to general education than to other university concerns because of the nature and the interplay of the factors involved. The discussion which follows will make this clear. Serious consideration of the conditions will help avoid falling into a state of dangerous complacency and false expectations.

First and foremost of these conditions is the necessity for continuous *affirmation of faith in the limitless possibilities for advancement open to the trained and disciplined mind* functioning in an atmosphere of freedom. On this belief rests the very essence of the university which must be promoted and preserved at any cost. It is the argument for liberal education and the justification for its place as the core of university studies.

Liberal arts studies are concerned with the painstaking search for first principles through constant reappraisal. Fixed ideas, single sets of values, and prescriptions on operations or on subjects for discussion are antithetical to these pursuits. For change is the constant thing. Our knowledge about the world and the university is far from complete and will continue to expand rapidly and progressively. Rules, principles, and ideas must be continually subjected to rigorous tests and analyses as things change around us. The natural scientist, for example, pursuing man's intellectual obligation to study the universe, observes the pattern of events in some phase or aspect of the universe, expresses it into laws, and explains the phenomena with theories. The laws are assumptions of a kind, subject to change as knowledge increases; and as understanding grows theories may be explained by more comprehensive ones. These greater explanations,



made possible by constant experimentation and review in a spirit of healthy skepticism, mark the great advances of science.

Similarly, ideas on ways of life and standards of behavior by which generations have lived, change gradually and more rapidly than ever in the face of forms and forces of liberalism, such as new dimensions of scientific knowledge, evolving concepts of freedom, the use of reason, etc. Change and variance are natural. In the university, diversity and conflict are necessary for they provide the conditions permissive to the broadening of interests, the use of intellectual tools for associating and handling facts and ideas, and the development of a perceptive sense. These activities can only proceed effectively in an atmosphere which provides the fullest opportunity for the independent use of the mind. The growth and life of the university depends on the preservation of this kind of freedom, for the continuous flow of creative ideas can come only from individuals who can think freely. It is this kind of freedom which guarantees the development of intellectual power, moral strength and self-discipline which ensure healthy and vigorous growth toward those forms of excellence which are of value to mankind. It is what makes a university an intellectual and moral force. It is the necessary condition for the general education designed to shape the intellect, impart a love for knowledge, and educate taste and feeling to produce men with the capacity for full self-realization as they continue to learn for themselves and raise their own level of cultural appreciation.

To hold otherwise would be to argue for fixed ideas and a single set of principles. This position is eminently safe, but it is sterile. It is insolent and presumptuous, denying man his dignity and his capacity for growth; it is rooted in fear, for it would mean keeping the student ignorant so he can be coerced to agreement; it is a stand

for mediocrity and an admission of it; and, it demands organized collective control over the minds of individuals, aligning itself thus with the police state. It does not follow, of course, that there should be no prescriptions of certain sets of values, rules, and operations. Group interactions require them. Thus, subjects have to be prescribed, books selected and rules on behavior laid down. But prescriptions do not contradict the thesis for the kind of freedom described, as long as some measure of choice is allowed. The student can think for himself, is asked to think for himself, to doubt, and to integrate his own experience. He can try to change the rules by established procedures if he so wishes. The very element of choice, in turn, demands inner restraint and requires responsibility for his actions on the part of the student. This is the kind of freedom that truly educates.

Recent developments in faculty activities augur well for the healthy growth of the program. For example, the divisional approach to the teaching of subjects has noticeably broken down departmental boundaries. The increased interaction among various disciplines promises vigorous activity in the development of new patterns of instruction and research. The concerted attempts to diminish the fragmentation of subjects have also dispelled much of the provincialism and inertia which have blocked progress for many years. The awakening interest in the preparation of textbooks and materials of instruction is worthy of note. The activity in this area, although still mild, is on the increase. The continued support of the program by the faculty and the leaders of the academic community lends strength and raises hopes. And the notable increase in the number of students seeking admission as well as the increase in scholarships made available to the University from public and private sectors should be sources of encouragement.



Another necessary condition for the success of the general education program is concerned with the *attitude of the student toward study*. A fine education may be obtained without going to college if a person with native ability and the will to learn tries hard enough. Going to college, of course, has the obvious advantages offered by facilities and resources, the conducive atmosphere and the condensed experience of the faculty. The choice of a college usually depends on these factors. But excellent though they may all be in a given college, they will count but little in the education of the student if he does not avail himself of the opportunities offered for learning in and beyond the classroom. The craving for a degree is not enough. There must be an intense desire for intellectual development and the fortitude to work long and hard. Learning is a difficult and slow process. It is a two-way affair. Exposure alone is no guarantee. One must work at it properly. For it is the learning itself, essentially an individual activity, which counts. The liberalization of the curricula by the addition of a few subjects in general education is no assurance that education will result. The truly educated man is marked, not by the possession of a great deal of information nor by the years spent in mastering an area of knowledge, but by an attitude toward learning and mode of thought and action. The profession of a student is a hard one, demanding for success an intense drive for improvement and the willingness to undertake systematic activities to that end. He must force himself to think, to solve problems. He must constantly strive to express his ideas clearly and concisely in order to develop rational habits of mind. Creative potential is released and new sources of powers are generated only by intense persistent effort.

But effort is not enough. There must be orientation, direction and planning. This is where the competent teacher comes in. Mastery of the subject matter, orderliness in

presentation and plan, fairness in grading, and a sincere interest in the welfare of the students are fine qualities in a teacher. But these qualities by themselves do not make a good teacher. The latter is distinguished by a capacity to infect students with a love for excellence, to energize them to higher levels of intellectual activity and to compel them to effort. He is identified by continuous scholarly study and by a liberal attitude toward learning. In class, he treats problems and situations as exercises in the association and handling of facts and ideas, and as vehicles for the improvement of the critical faculty.

As stated earlier, the practical problem in the educative process is the creation of the urge to learn and the efficient use of human energy for the process. In his own way, the imaginative teacher helps greatly in meeting the problem. So does the counsellor who assists students in finding their skills and aptitudes and in encouraging them to help themselves by overcoming fear and feelings of unworthiness through the formulation of rational goals necessary for the generation of interest and drive and the efficient use of energy.

#### ADMINISTRATIVE PROBLEMS

Universities have the obligation to experiment with new policies and practices in the attempt to elevate the standards of instruction. Among the more important areas inviting attention are:

1. Formulation of new criteria and methods in the selection and training of teachers, particularly of those who will teach the subjects that are intended to be broadening. — Selection must not be based mainly on research accomplishments or the promise for productive research activity. Effective teaching



and competent research work are not necessarily complementary; teaching and scholarly study are.

2. Development of new patterns and policies in the administration and teaching of subjects. — Interdisciplinary approaches to instruction should be promoted. There should be a search for better ways of utilizing the time and energy available for learning. Syllabi and instructional materials should be subjected to systematic revision to arrive at the selection of topics which have the best chances for success under actual conditions. Time should not be wasted covering materials which can be read outside the classroom. The examination and grading system needs reexamination. The teacher was never meant to be an expert corrector nor a strict drillmaster using graded performances as whips to keep students preparing for examinations, to the neglect of real learning. The improvement of teachers will not follow from an increase of salaries or of resources. It is imperative that the teacher and the student be freed from trivialities. Educational programs employing comprehensive examinations, eliminating the unit or credit system, and administered by independent examining agencies, are directed to the liberation of the teacher from drudgery so that he can devote his full attention to the business of teaching. It is of interest to note that such educational programs, while seemingly permissive and conducive to laxity in the classroom situation, have produced many excellent scholars and scientists. It is easy to see why. The programs are attuned to the liberal concept and to the learning process. While it is possible in isolated cases to initiate changes in policy and practices in local situations, it is necessary in general to introduce innovations on the university level, for major policies and inter-

related operations are involved. Thus, decision for action in the selection of students can be effectively made only from a university-wide view.

3. Improvement of the methods for the selection of students. — The inseparable relation between improvement of conditions of teaching and the elevation of standards is obvious. In this connection, attention must be given to the education of the talented student. In the preoccupation with the average student and with graded performance, the superior student is often neglected for he provides the least worry. His development is arrested, and sometimes, the lack of challenge and the consuming interest in grades foster bad habits and attitudes. This is a problem for which solutions must be found. Universities have the responsibility to provide the conditions for the maximum development of the gifted.
4. Provisions for larger opportunities for learning and character development outside the classroom. — Educational experience certainly comprises more than the classroom activities. Wholesome social relations and intellectual exchange are important factors in the process. The growing recognition of the importance of extending learning activities beyond the classroom is reflected in the expansion of building programs for dormitories, the encouragement of faculty-student relations, and the extension of cultural activities.

In recent years, the University of the Philippines has taken steps along these lines in an effort to elevate the standards of education. But sometimes, action has been somewhat slow and uncertain. This brings us to the third condition necessary to guarantee the maintenance and the improvement of standards, particularly for the program



of general education. It bears on the *organization and government of academic affairs* typical of large publicly-supported universities.

It has become traditional that all professors must have a hand in all decisions affecting academic matters. But when changes and innovations have to be approved by a large body of people of varied interests and abilities, most of whom have little or no understanding of the many facets of the issues involved, the decisions are apt to be haphazard. Sometimes, decisions are influenced by selfish and narrow considerations and resistance arising from obsolete ideas — a lack of knowledge of new developments and trends. In any case, too much time is consumed in committee work and the many operations involved. The system discourages and frustrates action. It effectively prevents the University from moving quickly to meet new developments and changing needs, and to respond to excellent suggestions. The systematic evaluation of university affairs is not encouraged.

Administrative ability and knowledge of university affairs are not necessarily associated with scholarliness. The continuation of the system is perhaps based on a concept of academic freedom which has no more relevance to present time and circumstance. It is a concession to tradition and heritage which the University cannot afford.

The problem is to arrive at new patterns and methods of organization and administration adapted to present needs, while still preserving the rights and privileges of our way of life. The scheme must provide for quick decisions in academic matters, for prompt attention to problems, and for efficient action on plans for development. In the light of present circumstance and in the face of urgency for prompt and wise decisions in planning and development, reliance on the time-honored system of giving all the professors a voice in making the major academic decisions might prove fatal. It may be too

much to expect that the faculty, in making decisions involving complex factors and operations, would move wisely and promptly. The right to make decisions should be premised on the retention of freedom to adapt values and standards to changing needs, and not to permit the preservation of the status quo by conformity to unsatisfactory standards or in pursuit of selfish interest. There are pressing problems, for example, which require thorough and coordinated study, discussion and experimentation, and where subsequent planning and decision-making will require an intimate knowledge of resources, activities and future plans and their interrelations. Patterns, priorities, assignment of duties and functions to the best qualified, plans for support — these must all be attended to.

Among the chief problems which require attention are: (1) analysis and formulation of academic values and standards; (2) reexamination of the programs of training for specialization to meet local needs; (3) determination of the direction and pattern of services to the community; (4) establishment of a policy for the recruitment and retention of competent faculty members; (5) reassessment of syllabi and design of subjects and encouragement of the production of local materials for instruction; (6) adoption of a systematic search for aid and benefactions; and (7) anticipation of future developments.

Wise and prompt decisions and operations cannot be made by large faculty bodies made up of a conglomeration of discrete units nor by lay governing bodies whose members do not have intimate association with academic affairs. Certainly, study must be given to the problem. Perhaps, a smaller faculty body can be created. Or it can be a committee of the most able men of the University. The University must meet the problem and should be able to solve the problem for it has the spirit and the men to do it.



Aggravating the already difficult problem of decision-making in the large and complex organizational structure of the University of the Philippines is the fact that the University has not yet satisfactorily adjusted its values and standards to the Philippine setting. Years of imitation and orientation to the Western tradition, perhaps necessary and expedient during the early phase, have created a climate and engendered attitudes not quite responsive to local needs. This fact, by itself, presses urgently for a fresh approach to organizational patterns for administration and development. The direction of growth should be toward an adaptation to a rapidly expanding society, seriously concerned with economic development and intensely preoccupied with aspirations for self-expression and self-realization. Academic values and standards are composites of many factors affected by variables in the surroundings. They cannot just be transplanted from other cultures into the local environment without modifications. The fact that a few of our graduates acquit themselves well in graduate studies in Western institutions is really of little significance except perhaps as proof that our standards are closely patterned after those of the West. The real question is whether or not we are producing graduates capable of becoming competent scholars and leaders contributing to the growth and development of the nation.

It can be expected that the cultural background and the education of the majority of the professors, who are steeped in Western culture, would influence the making of academic decisions. The tendency would either be to conform to the standards of the West, and even defend them, in the sincere belief that conformity would maintain reputation; or to submit to group pressures and opinions in the absence of an orientation provided by norms adapted to local conditions. This expectation is not without basis in fact. Experience has shown that the

almost sacred regard for the values of the Western academic tradition has been the cause of most of the resistance to changes directed to the evolution of an educational system adjusted to Philippine conditions. The resistance sometimes becomes ludicrous when it is meant to defend standards and practices which Western institutions themselves have scrapped in their present intensive effort to revamp their educational systems. It is not being argued here that the faculty are incapable of changing attitudes. As a matter of fact, the comments are intended to suggest that a shift of orientation to the kind of studies and researches which are relevant to the environment will redound to the ultimate benefit of the faculty and the University.

The adoption and implementation of the general education program may be viewed as a milestone in the growth of the University, marking a sharp turning point in the formulation of academic values and standards adapted to the Philippine setting. The turn is the result of a signal adjustment of the attitude toward educational norms, reflecting some truly substantial and salient departure from the Western orientation. Changes have been introduced along academic lines: others should be forthcoming on the level of policy-formulation and decision-making.



## PHILIPPINE HISTORY AND INSTITUTIONS I IN THE GENERAL EDUCATION PROGRAM

Teodoro A. Agoncillo

BEFORE proceeding to define the aims of Philippine History and Institutions I it would be well to define first the meaning of *institutions* as used in the context of the course. The dictionary meaning of the term did not satisfy the faculty members handling the course and, consequently, they proceeded to take stock of the various elements in Philippine society which constitute the essence of the Filipinos' way of life. *Institutions*, then, as used to elucidate the subject matter of the course, are the customs, traditions, beliefs, practices, activities, and agencies or instrumentalities which form the fundamental and persistent elements of a people's culture. Thus, the government, the church, the *fiesta*, cockfighting, and others, are considered Philippine institutions.

On the other hand, Philippine history, as it is conceived here, is the narration and interpretation of the significant events in the Philippines that led, directly or indirectly, to the development of Philippine polity. This definition is both inclusive and exclusive. It is inclusive in that it discusses not only the political development of the Filipinos, but also their social, economic, artistic, literary, and linguistic development. Philippine history, as it was conceived and taught in the University, say, twenty-five or more years ago, was limited to social and political development, with a quick and rather supercilious glance at the economic aspect of Filipino life. The artistic and literary development of the country was left to literary historians, who were non-existent in the first



place. Today, however, the idea of history embraces many aspects of a people's life and is therefore conceived as a huge and moving mural or, if you wish, a projector that flashes the meaningful events in the total life of the people.

In another sense, Philippine history, as a general education course, is exclusive in that it dismisses those events which, while they happened in the Philippines, nevertheless had nothing to do with the Filipinos and the development of their institutions. To cite an example out of so many that clutter the pages of our history textbooks: As one opens one's history textbook, one is struck by what an alumnus of the University affectionately calls "cavalcade of events." In this "cavalcade," one sees, for example, the early Spanish governors sending expedition after expedition to the Moluccas and the Marianas for purposes of conquest. It is, in the words of the same author-alumnus, the evidence of "Spanish dream of empire." Yet, if this particular event is analyzed, the question may be asked: What did the expeditions have to do with the Filipinos? The answer, of course, is nothing, unless it is pointed out that in those expeditions the Filipinos were used as rowers and soldiers and amounted to no more than slaves. Yet, useless as these events are, our textbooks waste one whole chapter on them. The result is that the reader's mind is saddled with useless details that serve no purpose except to parade the author's mistaken concept of history, which is the narration of what "actually happened," according to the nineteenth-century German historian, Leopold von Ranke. This literal interpretation of the great German's term "what actually happened" has been abused to mean the recitation of all that actually happened, a Sisyphus task, indeed, specially if it is considered that there is no such thing as a complete history for the simple reason that nobody takes cognizance of everything he does every minute of his life.

#### AIMS OF THE COURSE

There can be no better expression of the aims of the course than the pertinent ones among those adopted for the general education program of the University, namely:

1. Knowledge of the history and present status of the culture and society of which we are a part;
2. The ability to communicate thought effectively and to read with feeling and deep understanding materials of high value; and
3. The ability to think critically and to make relevant conclusions.

These aims are not to be treated or considered separately like the rooms of a house. Rather, they should be as the strands woven into a compact whole to form a strong rope. Knowledge of our history is useless if it is confined to mere knowing, that is, confined to memorizing dates and events. History is not a matter of cataloguing dates and events; it is understanding and interpreting those events, and therefore, it is of prime necessity to read with feeling and understanding in order to re-capture the atmosphere of a certain period and, more importantly, to capture the significance or essence of the events. Reading with feeling and understanding, on the other hand, is connected with the ability to think critically, and to think in a critical manner is to make valid judgments.

To succeed in these aims, particularly in the last two, it is imperative that the instructor should himself be possessed of breadth as well as depth — breadth in the sense of having a catholicity of taste and depth in the sense of being capable of sustained and profound thought. Unless these two conditions are met the aims set forth will be as useless as Rizal's pebbles that are not used in the construction of an edifice. The teacher of history must not be satisfied with being a mere scholar; he must be a



humanist. For he deals with materials that belong less to the social sciences than to the humanities. It is for this reason that history is not only an interesting but also an exciting discipline. It exacts the discipline of the natural sciences and the understanding of the humanities, the cold logic of mathematics and the vividness of the arts.

Perhaps the role of the history teachers is being unduly exaggerated? Maybe so, but if the aims set forth are to be realized as contemplated by the Administration officials, then there is no other alternative than for the teacher of history to develop that breadth of vision and depth of thought and feeling. He cannot be a good teacher who relies solely on what has been said over and over again without probing into unknown realms of reason or interpretation. He is not really a good teacher who merely repeats what many have said on the subject. A good teacher is he who probes deeply into any subject, makes his own observations, draws his own conclusions, and imparts these to his students in a manner that will make for high-level discussions. This is true of history as it is true of philosophy and literature. A good teacher of history, therefore, like his colleagues in philosophy, must have courage, moral courage, to dissent from the popularly held opinions, for a teacher who lacks deep convictions and the courage to express them is like a shrimp whose only virtue, if virtue it is, is to allow itself to float downstream — in a word, to be a part of the herd. This kind of teacher can never be expected to inspire his students to think on their feet and to cultivate a taste for culture.

Significantly, the teacher of history must have that breadth of understanding so essential to the development of an impartial attitude. In this connection, it should be pointed out that many teachers of history, and even those who pretend to know history, think that history should be written or taught objectively in the sense that

natural science is objective. Now, this is one of the myths that the teacher of history should avoid. There is no such thing as objectivity in history, for the facts of history are chosen by individuals who may have diametrically opposed opinions or orientation and whose interpretations of the facts depend upon their personality, environment, and formed notions of right and wrong, bad and good, strong and weak, and so forth. It is for this reason that no two historians or teachers of history have exactly the same interpretation of an event or set of events. It is precisely in these dissimilarities that the students can profit: they are exposed to more than one interpretation and so they have the opportunity to exercise their own judgments.

What has been termed objectivity in history is, in many cases, impartiality. The confusion in the use of the two terms is enormous. There is, therefore, a need on the part of the teacher for distinguishing the one from the other. Objectivity implies that the writer or teacher should not intrude himself into the subject, that the facts should be allowed to speak for themselves. The late American historian, Carl Becker, in his essay "What Are Historical Facts?"<sup>1</sup> blasted the myth of "letting the facts to speak for themselves," when he said:

... what the historian is always dealing with is an *affirmation* — an affirmation of the fact that something is true. There is thus a distinction of capital importance to be made: the distinction between the ephemeral event which disappears, and the affirmation about the event that constitutes for us the historical fact. If so the historical fact is not the past event but a symbol which enables us to recreate imaginatively. Of a symbol it is hardly worthwhile to say that it is cold or hard. It is dangerous to say even that it

<sup>1</sup> *Detachment and the Writing of History: Essays and Letters of Carl L. Becker*. Phil. L. Snyder, Editor (New York: Cornell University Press, 1958), p. 47.



is true or false. The safest thing to say about a symbol is that it is more or less appropriate.

Facts, therefore, do not speak for themselves; it is the writer or teacher who speaks for the facts. On the other hand, impartiality implies studying all sides of a question and giving each side due consideration before making one's conclusions. It is not impartiality, for instance, to denounce the Spaniards for the sinking of the American battleship *Maine* in 1898 without digging into the circumstances and ascertaining the cause or causes of the blast that sent the ship to the bottom of the sea. Clear as this distinction is we find highly educated people exchanging the meanings of the two terms, but mostly mistaking impartiality for objectivity.

#### PLACE IN THE GENERAL EDUCATION PROGRAM

When the University Administration introduced the general education program, it was assumed that the old first-two-years curricula were inadequate for purposes of civilizing the students, particularly those preparing for professional courses. It was further observed that while a student enrolled in a professional course may become a bright lawyer or doctor or dentist he is, nevertheless, so thoroughly one-sided in outlook as to become what has been termed an "educated barbarian." It was therefore thought advisable, nay, wise, to prepare a two-year general course for all students the purpose of which is to prepare students for severe intellectual excursions into the unfamiliar fields of the humanities, the social sciences, and the biological and physical sciences. It is hoped that after two years of intensive grappling with the various branches of intellectual discipline the students will find themselves prepared to meet life with more weapons than they had before. In other words, they acquire the basic knowledge and understanding of the great thoughts and

ideas of the world which will make them not only prepared to meet life squarely and courageously, but will also make them more or less complete men and women.

In relation to the general education program of the University, Philippine History and Institutions I gives the students a wider perspective of their country's history than ever before, when the course was limited to the Spanish period with desultory paragraphs on the Revolution. Having a much wider scope the new course perfectly dovetails with the general education program, whose fundamental aim is to introduce the students to a broad field. The course introduces the students to almost all fields or areas in Philippine history. They can, for instance, immediately take courses above 100 without the necessity of taking what in former times were called prerequisites. Thus, a student, having gone through Philippine History and Institutions I, can choose to study any of the higher courses which deal minutely with an area, say, the Philippines in pre-Spanish times, the Philippines in the nineteenth century, the Philippines during the Revolution, and contemporary Philippines, which covers the period from 1900 to the present. Even without taking the advanced courses in Philippine history, a student who has taken Philippine History and Institutions I will have enough knowledge and understanding of the whole field of Philippine history to enable him to pass a civil service examination for, say, foreign service, or to make his own study of any of the specialized branches of the area. This is a decided improvement over the old History 5 which had a very narrow scope and limited interest.

#### LIMITATION OF THE COURSE

Limitation of the course proceed from the fact that the course covers a wide enough field, from the pre-Christian



Philippines to 1959. It deals with the political, social, economic, religious, and cultural aspects of Philippine history. The Spanish period, which in other textbooks is treated in ten or more chapters, is summarized in three chapters. This is so because up to approximately 1872, the Filipinos played but a minor role or no role at all. Since the course deals with the Filipino people and the development of their polity, and not with the Spaniards in the Philippines, the emphasis, naturally, is on the Filipinos and the role they played in the formation of their nationality.

Being of a general character, the course is not complete. In the first place, there is no such thing as a complete history. History, by its very nature, becomes incomplete immediately upon the completion of the book. In the second place, it is physically impossible for one man or group of men, no matter how dedicated to the task, to know all that there is to know about a single event: documents do not always give an account of every detail, and man's memory is so fragile as to be completely reliable.

All that is attempted in the course is a well-rounded, if brief, account of the significant events that led to the development of the present Filipinos and their institutions. Persons and events are telescoped to provide a wide panorama. Microscopic considerations of a period in this panorama are left to the higher courses.

Significantly, the point of view taken in conducting the course is that of a Filipino. As an independent people, it is our duty not merely to know but to understand our past and to interpret it from the Filipino point of view. This is crucial, for hitherto our history has been seen through alien glass. The result has been the twisting of facts in such a way as to denigrate the Filipino and so to instill in him an inferiority complex that has made him

look upon himself with misgivings. While persons and events are interpreted from the Filipino viewpoint, there is, however, no attempt to subvert or twist historical facts to accommodate national or regional prejudices. What is attempted is a re-consideration of the facts of our history and their re-interpretation from our point of view. Thus, for example, our textbooks, past and present, insist on what has been termed the "discovery" of the Philippines by Magellan. This is, from our point of view, erroneous, for our ancestors already had commercial relations with the countries of Southeast Asia hundreds of years before Magellan was born. Then some historians, who enjoy tremendous popularity in many schools, particularly in sectarian schools which use their textbooks, equally insist that the Philippines was "re-discovered" by Magellan. This is worse, for it implies that our country, in some distant past, disappeared and then emerged to the surface at the precise time that Magellan was sailing in his frail ship to the Moluccas. As a myth, it is entertaining; as a historical fact it is simply impossible.

This popular misconception is eschewed in the textbook for Philippine History and Institutions I. The student in this course is led to think of himself as a free Filipino and not as a colonial.



## HUMANITIES II IN THE GENERAL EDUCATION PROGRAM

Ricardo R. Pascual

At the outset, I would like to lay down the general assumptions under which the offering of Humanities II shall be undertaken. I am confident that these assumptions have received assent from most of us who have been conscientiously clarifying our thoughts on the matter of the University offerings which constitute our general education curriculum. These assumptions are as follows:

1. The excellence of instruction in any subject-offering is a function of the competence of the teacher. The old adage that one cannot give what one does not have is a proverbial generalization of this assumption.
2. Studying on the part of the student and teaching on the part of the instructor are work-activities which can only be fruitful if pursued conscientiously and relentlessly.
3. The University level of education is primarily geared toward intellectual development.
4. The burden of learning shifts increasingly to the students from year to year during their residence in the University.
5. The teacher serves as a provoker, stimulator, catalyzer, and guide in the search for ideas to be learned, conscious that his example would be a source of inspiration, or deterrent, for the students who are his apprentices in intellectual venture.

These are some of the basic assumptions which, I believe, find common acceptance among us and to which

the efforts of teachers and students are to be geared. Within this framework, I shall now proceed to the development of this paper on the offering of Humanities II.

### WHAT IS HUMANITIES II?

In the general education curriculum designed for all students of the University of the Philippines for the first two years of their residence in college, Humanities II is described as follows: *Readings in Speculative Thought — A study of the major problems of speculative thought in terms of the selected documents in the history of human speculations from ancient to modern times — credit: 3 units*

This is a course to be offered in the second year of the general education curriculum. There is no gainsaying the fact that a course in speculative thought is basically a course in philosophy, almost equivalent to what has been traditionally recognized as an introduction to philosophy. The designers of the general education curriculum must have been conscious of the purpose for which the University has been established, as expressed in its charter, to wit: "To provide advanced instruction in literature, philosophy, the sciences, and arts and to give professional and technical training." It stands to reason that advanced instruction in philosophy would be next to impossible unless an elementary course which is basic to the full appreciation of the philosophic tradition is first given to the youthful students. Moreover, inasmuch as general education is also known as basic education, in which the students shall be introduced to the fundamentals of the general fields of human knowledge, a course which introduces these students to the tradition of speculative thought becomes a necessary ingredient of the curriculum. The position now assigned to this course in the



general education curriculum, which presupposes prior instruction in the various fields of human knowledge such as natural sciences, social sciences, and the arts, without forgetting the necessary communication skills, points to the recognition that, in some sense, this course is a rounding-out or a coordinating treatment of human knowledge in general and is designed to take the students' minds to a higher plane in their intellectual growth.

As tailored by the designers of the course and as it now stands in our curriculum, Humanities II deals with problems of speculative thought covering four main areas which cut across the various fields of knowledge in which the students have already received some instruction. These main fields deal with:

1. The problem of inquiry, broken down to problems of methods, use of terms, definitions, process of reasoning — all contributing to the art of the traditional concept of "debate" or the art of "intellectual conversation."
2. The problem of knowledge of world events: physical, psychological, social, or moral.
3. The relation of philosophic speculation to scientific knowledge.
4. The problem of knowledge beyond the world events — the problem of knowledge of what is beyond the physical, hence metaphysical.

At the outset, such a course has two alternative avenues of implementation: either (1) the course may be offered as a straightforward introduction to the above-mentioned main areas through a book by a modern author on speculative thought, designed for beginners, much depending on the suitability of a text to be selected, or (2) the course may be offered in terms of selected documents from the history of human speculation as they appeared in the course of human endeavor in speculative

thinking. In the latter alternative, the students will come in contact with the original expression of the best minds in this tradition, thus affording them the rare experience of intellectual conversation (through the inspiring selections) with great philosophers. We have chosen the latter alternative in the offering of Humanities II.

The selected readings are taken from the authors who are recognized to have contributed to the flowering of the human intellect, men whose works have been given a premium by their inclusion in "The Great Books." It is to be admitted that there is an exclusive borrowing from the tradition of Western culture, because the main areas selected for the course so dictate. We are aware that as we acquire experience in the offering of this course we have to include in our selection works from the tradition of Eastern culture. The list we have made is by no means final; it is only a working list which shall be improved upon from time to time.

#### OBJECTIVES OF THE COURSE

It is recognized that the successful offering of any subject is not merely one of willy-nilly sticking to a syllabus or a prescribed list of readings, however closely the schedule of daily meetings is adhered to. Unless the instructor is conscious of the main objectives of the course, both he and the students may go through the motion of studying but may not profit in the acquisition of learning.

Conscious that the students have come in contact with various subjects of knowledge and assuming that they have conscientiously participated in the required activities which make them possessors of the basic learning in those truncated areas of knowledge, we are fully aware that the students have not yet been exposed to the speculative point of view, in which the various subjects already learned can be dealt with again. *One of the main*



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*objectives of Humanities II is to acquaint the students with, and make them participate in, a point of view which aims at the development of skill for generalization by raising the basic problems involving methodology, use of terms, the virtue of precision through definition, and the expansion of thought through the process of reasoning.* The student may not yet be aware of these basic problems even when he has already participated in pursuing a specific methodology applicable to a definite subject matter which he has studied. Students may not see the full implication of the need for precision through definition and the strict observance of the process of reasoning, deductive and inductive, even when they have acquired some skill of reasoning through repetition or imitation.

It is not uncommon for students to develop somewhat like a naive attitude of claiming to possess scientific knowledge about the physical world without being conscious of the problems of knowledge, which the recognized contributors to science have been aware of, an awareness which made these pillars of science regard their own contribution with diffidence — a genuine evidence of scientific attitude. It is, therefore, indicated that *the second objective is to make our students aware of the difficult problems of knowledge: not so much the peculiar problems attendant to a particular science, as the basic problem of knowing, broken down into: the nature of knowledge, the elements for knowledge, how we know, what we know, and the validity of knowledge.* Traditionally, this area has been called epistemology.

It has been the sad experience of many and almost always evidenced in our daily contacts with our fellow-men that knowledge is viewed not as a whole, not from the overall point of view, but from the compartmentalized perspectives, thus bringing about the acquisition of bits of information, pluralistically juxtaposed, without

the students realizing the need or basis for their unification. It is also possible that students have only unrelated knowledge from the several sciences, such as chemistry, physics, botany, or zoology, to mention only a few, without even feeling the need for the unity of these sciences. This is the proverbial case of a person who is familiar with the several trees but loses sight of the forest and inevitably gets lost in it. To pursue this metaphor, we might say that we would like the students to be acquainted with the trees and at the same time be conscious of the forest to which these trees belong, so that he would enjoy the rare experience of unifying his acquaintance with the several trees. *The relation, therefore, of the various scientific endeavors, divided as they are into various disciplines, with the speculative tradition so as to unify them into greater and more comprehensive generalization — one is tempted to say, in search of the "universal" — is very clearly indicated.* The intellectual growth of the human mind should not be stifled by the temptation of dwelling merely on the particulars or by the tragic realization that full acquaintance with the myriads of particulars takes more than a life-time. The mind should rather be afforded the opportunity to experience the delight of speculative thinking, through which it can grasp the unity of the diverse particulars. *In the pursuit of this objective, the treatment of the relation of scientific knowledge to philosophic speculation should be undertaken with the full consciousness that the art of generalization or the search for universals is the main point.* We need not entertain the fear that the young minds of our students may not soar to the height required in the pursuit of this objective, because, as everybody knows, generalization is attained on various relative levels. He must be a poor teacher indeed who, failing to recognize this, would make the offering of the course useless by the jargon of big words or unfamiliar technical terms without any attempt at clarification.



Through the long history of human intellectual endeavors — from the dawn of recorded history down to our own sophisticated twentieth century — dominated as the latter is by the impulse toward scientific and technological specialization, variegated types, or finely differentiated kinds, attempts at human speculation of the kind which moves away from the glitter of materialistic emphasis have not waned in the least. Thanks to the assault of destructive human follies, mankind has always been constrained to return to the speculative tradition of various vintage as it picks up its remains from the debris of such destructions, pinning its hope and finding the fulfillment of its being in values beyond the physical and the mundane. Mankind has even gone as far as to make it a matter of faith that the fulfillment of its destiny lies in the realization of such metaphysical values and in redesigning its mundane life in conformity with such "truths" as metaphysical insights can attain. If college education, hence general education, has to give the students some training in intellectual endeavors it would be remiss in its mission if the students were not afforded the opportunity to come in rapport with the best samples of such speculative thoughts. *It is clearly indicated, therefore, that among the objectives of this course is to be included the desire to guide the students to the source of such speculative inspirations and to stimulate them to penetrate to the essence of such adventures in abstract ideas to the utmost degree that their native capacities would permit.* The adventure in ideas is such a fascinating intellectual excursion that we must not lose sight of the mental enjoyment that the adventurous minds of the youth can derive from it. The teacher is obligated only to guard against the incursion of obscurantism in the guise of pretension to a monopoly of truth, especially when the teacher, himself, might be the dictatorial force which unwittingly yields to such temptation.

In expressing the objectives of the course, we are not unaware that our language might express enthusiasm rather than a concrete and precise description of our goals. The statement of objectives might even be criticized as a veritable sample of obscurity and a jargon of abstruseness. Some may even get the impression that Humanities II appears to cover all other course-offerings, an impression which, when pushed to its absurdity, might create the fear that this is a course to end all other courses. The fear is real but unfounded and can be entertained only to the degree inversely proportional to the training in speculative thought of the one who holds it. At any rate, the best that can be done about the abstract is not to particularize it in the concrete, or even to supply profuse illustrations of what the metaphysical speculations do mean — both are self-contradictory feats — but to guide the students to the sources of such intellectual adventures and persuade them to quench their thirst of curiosity therefrom until they themselves could, after their apprenticeship, attempt in their own way to take their own adventure in ideas. Like learning to swim, thinking speculatively cannot be done unless one is thrown into the troubled sea of ideas or shares vicariously the experience of those who have had adventures in ideas. Certainly, we are not promising, or even aiming, to produce "philosophers" out of the students in Humanities II (would that this were possible in a single course!) but, since, as Aristotle once pointed out, whether one wishes to or not, one philosophizes, we wish only to contribute toward the completion of the college education of the young novices who thus become our wards by our profession in the adventure in ideas.

#### INSTRUCTIONAL MATERIALS

The instructional materials indicated for the course are specified in a list of readings for Humanities II.



They consist of selections dealing with specific topics classified under each of the four general headings, each of which is descriptive of a specific area of speculative thought. These areas are to be taken up in sequence. The first area is the problem of inquiry — questions of methods, precision through definition, introduction of terms, procedure of reasoning, process of analysis. In this area, selected readings are taken from Plato, Bacon, Descartes, Pierce, and Russell. The next area is the problem of knowledge of the world — how we know, what we know, nature of knowledge, tests of validity of knowledge, etc. In this area selected readings are taken from Aristotle, Pascal, Descartes, Locke, Hume, Kant, J. S. Mill, and Russell. The third area is the relation of scientific knowledge with philosophic speculation to the end that the need for, and basis of, the unity of the sciences may be realized so as to afford the students rare opportunity to develop some kind of world outlook — a *weltanschauung*. The selections for this area are taken from Bacon, Dewey, Whitehead, Jeans, and Eddington. The fourth area deals with the problem of knowledge beyond the physical, hence the metaphysical. Notions of God, the soul, immortality, freedom in the larger sense, and purposes of existence are to be dealt with in this area. The selections for this area are taken from Anselm, Thomas Aquinas, Pascal, Descartes, Hume and Kant.<sup>1</sup>

<sup>1</sup>Selections used in the course are reproduced in the following inexpensive editions:

(a) John Herman Randall, Nustus Buchler, and Evelyn Urban Shirk (Eds.), *Readings in Philosophy* (New York: Barnes & Noble, Inc., 1946).

(b) Saxe Commins & Robert N. Linscott (Eds.), *Man and Spirit: The Speculative Philosophers* (New York: Pocket Books, Inc., 1954).

(c)....., *Man and the Universe: The Philosophers of Science* (New York: Pocket Books, Inc., 1954).

(d) Bertrand Russell, *Mysticism and Logic* (New York: Doubleday & Company, Inc., 1957).

## METHOD OF INSTRUCTION

Implementing the objectives we have laid down before the course and complying with the *concentrated guided-study plan*, Humanities II shall follow the instructional method well suited for the purpose. This course is primarily "a study of the major problems of speculative thought in terms of selected documents in the history of human speculations from ancient to modern times." The emphasis is on the intellectual contact of the students with the thoughts of the great minds from the past to the present. The division into four main areas of problems of speculative thought is for purposes of systematic comprehension of the nature and extent and the implications of these problems to the development of human culture. This specifically entails reading of the assigned selection on the part of the students well within the specified time-segment in the scheduled number of weeks of classroom studies. Clear perception of the thought-contributions of the selected great minds bearing on certain definite problems of speculation is the target of achievement and for this the teacher should be fully aware of his responsibility in attaining this goal. The classroom transaction should be one of lively participation between the students and the teacher, who must regard himself as an elder student among a group of young scholars, all eager to get to the core of the ideas being studied. The procedure should be one of stimulating discussion, in which the flow of ideas should find no deterrent in the pontificating attitude or *ex cathedra* air of the teacher, nor should digression be permitted to nullify the gains made in understanding the thought-contributions of the particular author or selection. The relevance of the problem under discussion to the contemporary state of culture, in the nation or in the world, should always be aimed at in order to preserve the timelessness of the contributions of speculative thought.



Through the realization of the timeliness at any time of these contributions, the students would be afforded insight into the greatness of the thoughts of those rare minds. For the study of the contributions of these great minds, no greater motivation may yet replace the realization that the student, being human, belongs to the species which produces these great minds and only through studying them does he share in the enjoyment of the adventure into the universe of great ideas. The truly "Socratic method" in which the teacher becomes the gadfly to stimulate the minds of the students, or the midwife to help in the delivery of the students' ideas, is the method best adopted in the classroom transaction of this course. The celebrated dialogues of Plato covering a wide assortment of subjects, from the everyday preoccupations of the social life to the sublime, beyond the perceptual, best illustrate the technique of the "Socratic method."

While in Socrates' or Plato's employment of this technique, only one student, and at best two, was singled out in the group, we can immediately perceive that in the same technique of instruction we may introduce modifications by involving in each day's discussion, say, from 10 to 15 students while the rest pay attention to the exchange of ideas (exactly in the manner originally employed by Socrates in the *Agora* or by Plato in the Academy), or by involving as many students as possible during the class meeting. Since there is no previous notice as to who shall be called upon in the discussion, it is expected that everybody in class will be on the alert. Thoroughness in discussion-participation should be the guiding criterion in order to animate the attitude and disposition of the students. It goes without saying that the teacher should be the example of enthusiasm in the class transaction. Provided that the members of the class respond enthusiastically to the serious study of the

assigned readings, the teacher will assume the role of "moderator" among the discussants and if he performs this function conscientiously he should subtly steer the discussion to profitable avenues which shall secure clear understanding of the great ideas being studied. Our classroom experiences should make us wary of the oft-repeated tendency of some students to bring in irrelevant matters which not only wastes time but also adds confusion to the issue under consideration. The introduction of humor and wit as delectable ingredients of the adventure in ideas is perhaps necessary if only to keep the mood of the class at its best, but the best wit is one that is punctiliously relevant to the thought under consideration. The comic for the sake of laughter is most proper only in entertainment halls but not called for in classrooms devoted to serious study of speculative ideas. Perhaps a word of warning is in order: the teacher should not do the thinking of the students; the teacher should help and facilitate the thinking of the students through ways and devices which a truly experienced teacher would have already found. Socrates, the kind of teacher that Plato pictured him to be, would be a model teacher for this kind of course.

#### EVALUATION OF INSTRUCTION

Talks on evaluation of instruction immediately call attention to the administration of certain kinds of tests by which the students' performance is gauged and subsequently credited. It may well be recognized that testing the students' performance in a course can be taken not only as a gauge of what the students acquired in that course but also as a kind of measure of the efforts of the teacher. Because testing the students' performance is a direct measurement of the students' knowledge to the degree which yields to the kind of tests administered,



its reflection on the effort of the teacher is only indirect and its validity on the latter referent becomes lesser as we multiply the number of factors, for which the teacher is unaccountable, which may be taken to contribute to the poor performance of the students. At any rate, it is perhaps piously assumed that to the better performance of the students in such tests the teacher's excellence in his function must have contributed, in a measure determined by the ego-centricity of the teacher who would so make the claim. Contrari-wise, why may not the poor performance of the teacher in his classroom transaction be considered as contributory in some measure to the uncreditable performance of students? It is an interesting phenomenon, worth our while to ponder on and to analyze, that if the poor performance of the teacher is in some way admitted to contribute to the poor performance of the students as revealed by the tests, the measure of this responsibility is always minimized almost to nil, for none would brazenly admit poor teaching performance on his part, or even submit to some such determination on the plea of "academic freedom." This remark is made with the sole desire to invite conscientious introspection for purposes of self-improvement and not to force the issue as to the definition, and determination of the extent in operation, of the concept of "academic freedom" — which, perhaps, needs to be done sometime, anyway, especially for us whose profession makes capital of such concepts, now invested with miraculous or magical power to cover any sins of omission or defects of commission. We all know that the undefined concept of "academic freedom," like its matrix "freedom," functions like a "coat of arms" for the protection of the "academic faculty" against any threat of curtailment or limitation by those in the "administration," of whatever kind or hierarchical level. I am not sure whether this is a blessing or a disguised evil.

Immediately the evaluation of instruction may be classified into two main concerns. On one hand, we can refer to the instructional performance of the teacher, to which we have already referred and the state of affairs regarding which is still fluid and needs more precise policy and more concrete procedure for valid evaluation. On the other hand, we can refer to the result of instruction measurable by the performance of the students not only in classroom transaction but also in specially devised tests, the limitations and positive functions of which must be fully recognized before they are overinvested with virtues they may not possess. It is admitted without need of argument that when the students who underwent instruction in any course are to be given credit in terms of academic units (provided "passing grades" are given, which must be shown in official university documents called "transcript of records"), the instructor concerned, who, by the University rules, is solely responsible for whatever "grades" he gives — creditable or not — is obligated to give such grades. Two recourses are open to the instructor: either (1) he gives his grades to the student — who are either known or unknown entities, depending upon the size of the class — by inspiration, impression, or pure guess-work — in any case without valid and critically considered ground, or (2) he gives his grades on the basis of some kind of ground, considered solid to the degree commensurable with the validity of his testing devices. When the "conscience" of the instructor becomes a strong factor in the giving of the "grades" of students, some would consider the students' performance in the tests — quizzes and/or final examination — as the sole basis for action, while others would grant certain indefinite "premiums" on his own impressions of the students, especially when the test-performance of certain students works against their own interest — both actions being for the same reason of "conscience." At any rate, there is a consensus that



testing the students' performance through quizzes — long or short — and final examination is a valid and objective ground for the giving of grades, whatever other factors are permitted to come in at the point of writing down the grades of students in the "final report of grades."

The evaluation of instruction in Humanities II, with reference to the learning on the part of the students, will certainly be done in terms of periodic quizzes (each being tentatively set at the completion of each of the four main subdivisions of the course) and the final examination at the end of the course. There is merit in giving the final examination a weight equal to that given to the total of the quizzes, in so far as this course is concerned, because the nature of the course aims at the training of the students in generalization and realization of the unity of knowledge. The final examination is the best gauge of whether the students have imbibed this kind of training. This is by no means the sole objective; hence, the quizzes on the various subdivisions play their proportionate roles.

Recognizing that the method of instruction that is proper for this course is primarily discussion and, therefore, the classroom transaction will principally consist of the students' participation in this discussion, how are the teachers going to differentiate the quality, frequency, and extent of participation of each student in this intellectual activity? We know too well that the course aims at training the students in speculative thought, an objective which seeks to develop an intellectual ability to be demonstrated in actual performance of critical analysis of ideas and the pursuit of the process of reasoning for the expansion and development of definitely chosen ideas, rather than merely the mental ability to remember what one has read. I would think that written tests alone would not be adequate to make this differentiation in the

classroom discussion-participation of the students. I would, therefore, suggest that the teacher, being the only one in a position to do something about this, should devise some way of recording credits or discredits for the students' participation in the classroom transaction. Such credits or discredits should be given some weight, say 25 to 30% of the final grade to be given to each student. If announcement of the system of grading in the course is made at the beginning of the course, I should imagine that the students would thus be made aware of their own responsibility for the final grade they shall eventually get. The practice should approach the principle that the grade a student gets is the grade that he makes. The teacher should make the students realize this and should not cause the students to doubt his integrity by actions which imply the contrary. I would, therefore, commend the serious study of the matter of grading the students in this course to the instructors who are to handle the course-offering.

There remains the other device of requiring the students to write papers for the course. On the matter of writing papers, we need to state a word of caution, for the instructor's enthusiasm may overlook the fine objective for which papers may be required. Papers required of students should demonstrate their ability in speculative thinking rather than merely their ability to write digests or summaries of the reading matters assigned in the course. The students should be made to realize that these papers are added opportunities for them to demonstrate their ability for speculation and analysis of issues and should not be mere exercises in paraphrasing or rewriting the great thoughts of authors they are assigned to read. The instructor should seek out the students' own thoughts, from which he shall find the enjoyment of witnessing the progress and improvement of the students' ability in speculative thought in-



stead of getting, as in most cases, the students' bad comprehension and faulty understanding of certain critically written and precisely guarded statements of very profound authors, or even the students' carelessness and unscholarly inexpertness in quotation making. This, therefore, indicates that the topics for the students' papers should be well chosen and critically selected with the aim of drawing out the student to exhibit the result of their training in the art of intellectual activity. Papers should not be assigned with the view simply of dumping everything on the students, as unto the backs of beasts of burden, or even with secret desire on the part of the instructor to create the impression of being a "terror" or a merciless "slave driver." It would do well for us to observe strictly that nothing should be done in any course for the benefit of the instructor at the expense of the students.

#### EXPECTED DIFFICULTIES

Considering the position of Humanities II in the general education curriculum, the students who are to enroll in this course are expected to have had the benefit of the other offerings from the several fields of human knowledge before taking this course. The students are supposed to have had training in communication skills to some degree and to have acquired basic knowledge of the natural sciences, the social sciences, the *belles artes* and of Eastern as well as Western thought and institutions. Such a fertile intellectual background makes them ready to venture in speculative tradition. With this kind of students, the teacher of Humanities II has reason to hope for enjoyment rather than difficulty in the offering of this course. This intellectual enjoyment is not to be marred, on this premise, by the lack of background materials to draw from. However, the novelty of the point

of view of speculative thought in the experience of the students, in spite of such a fertile background, may be a drawback in the fruitfulness of the classroom discussion, but this is easily overcome as the instructor is able to indicate the nature and requirement in the practice of speculative thinking. Here, the instructor shall first give illustrative performance in the handling of ideas presented in the readings. If the instructor shall keep in mind that the apparent obstacle to the realization of generalized thinking is merely the unfamiliarity of the students with that mode of intellectual activity, then this obstacle will not become formidable and shall in a short time be eliminated. The spirit of speculation, utterly distinguished from mere imagination is a contagious one even for beginners as witnessed by those who by accident got themselves lost in the fascination of Plato's dialogue or the intricacies of Spinoza's *Ethics*.

However, it would be highly probable that due to the limitation of time in the offering of the general education curriculum or the exigencies of physical factors and administrative limitations, students with lesser background than those earlier referred to may be admitted to this course. Administrative expediency in this case will certainly create academic difficulties in the classroom offering and such difficulties would be a challenge to the ingenuity of the instructor. I would like to think that the instructor will not use such difficulties as alibi for the poor quality of the class instruction, if only he has wide enough experience to draw from in stimulating the students of his class. But this is more of a hope than an assurance respecting the actual classroom transaction.

Therefore, as much as possible, the course should be prescribed for students in the last semester of their sophomore year in the general education curriculum. Any deviation from this on the liability side should be minimized to a great extent. I would think that this is the



responsibility of the Division chairman concerned and the Dean of the University College.

#### COMPETENCE OF INSTRUCTOR

The picture we have painted of the offering of Humanities II, which may appear beautiful to some, impossible (being idealistic) to others, or utterly self-serving to those who fear the encroachment of this course on their own special studies, would become really any one of these alternatives, depending upon the kind of instructors offering the course. The competence of the instructor is the key to all our educational programs, not excluding Humanities II. This basic fact should be the focus of attention of those who are to be involved in the teaching of this course.

The competence of the instructor is a matter of ability, tested by performance in classroom activities and in transaction with scholars — from the student level to that of experts — and is not to be taken for granted on the basis of more scholastic credentials or even by a formidable list of readings in the various areas of knowledge. Anybody's list of readings is a tentative and running list, which grows or shrinks depending upon many subjective factors. But the ability to perform — the competence of the teacher — is quite another thing from the preparation which a good teacher must possess. It would be well to call attention to the fact that competence is a quality which comes out of achievement, not merely from a promise of achievement. In saying this, I am thinking of experience — in this case, experience in speculative thinking — as the solid ground for competence. Perhaps, I am swayed by the ideal picture of a competent teacher in speculative thought, which is difficult to have at any given time. Nevertheless, this picture should form the

frame of reference whenever we talk of the competence of the instructor for Humanities II, at least.

The following words of caution, I think, would not be amiss. The teacher of this course should not be merely one or two days ahead of his class in reading the assigned selections, for were this so, he would not be in a position to serve as provoker, stimulator, catalyzer, or guide to the group of novices in his class. The instructor must have made a serious study of all the readings in the list prepared for the class before he ever faces his class on the first day of meeting. He must have acquired the overall perspective of the entire course on speculative thought, so that he can, at will, point to the significant thoughts which served as landmarks in the progress of human speculation, not only in each subdivision but also in the whole coverage of the course. He must be aware of the implication of the contributions of the past to the contemporary state of intellectual affairs so as to provide further stimulation to the students whom he is supposed to inspire to take the bold venture into the universe of ideas. The instructor's curiosity must be shown not to be a groping one but a directed wonderment, taking its direction from his familiarity with the historical development of human speculations. This is not saying that the instructor should be a philosopher in the traditional sense of the term. He is only required to have imbibed and to demonstrate the philosophic attitude, shorn of arrogance and pretension, which his studies must have infused into his character and habit of thinking. There is such a thing as modesty in thinking without making ignorance, itself, a virtue of scholarship.

There is such a thing as familiarity with the texts of the course, which is requisite for competence but not sufficient to spell the competence contemplated. Bibliographic minutiae are quite different from the required



penetration that is called for in the making of a competent instructor.

I realize that these words of caution may present a grim picture when we think of how to make practicable the offering of this course. I am, however, aware that competent teaching, like any other human affair, is something that grows and develops through the years. This means that we have to begin with whatever resources we now have and endeavor to reach the goal envisioned in our ideal. The making of a competent teacher is a continuing affair and I am not sure whether there is an end, within the lifetime of any man, to this process. Aiming high at the ideal should not make us forget that our feet are on the ground of realities from which we have to start.

One final word: we shall leave to the chairman and the members of the division concerned the realization of their responsibility, i. e., to make secure the competence of the members of the faculty to be assigned to teach this course; or, given the available academic personnel with a certain level of competence for this course, to enrich continuously the level of their competence through the device of faculty seminars and the like. The gauntlet of hard work is thus flung to us by our conscientious devotion to our profession. We can do no less than meet it frontally.

## CRITICAL THINKING AND GENERAL EDUCATION

Armando F. Bonifacio

One of the fundamental values commonly associated with our general education program is the development on the part of the students of the so-called *ability to think critically*. This will immediately be noted upon reading the statement of objectives of the general education program as contained in the catalogue of the University College.

And from what has so far transpired since the implementation of the general education program, it can be said, and with justification, that almost everyone, save the perennial critics and devoted detractors of the University, is committed to the pursuit of this value. Instructional materials particularly of those courses forming the general education curriculum have been so re-designed as to achieve this all important goal.

But while a unanimity of opinion regarding the intrinsic value of critical thinking can be said to exist, even on the abstract plane only, it is indeed another thing to consider this value in specific terms; that is to say, such unanimity of opinion would most probably cease to exist when an attempt is made to reduce the concept "critical thinking" to simple manageable terms. Questions like *what is critical thinking?* or, *when do we say of a person that he is thinking critically?* or, *are there forms of thinking that are not critical?* or, *are not all thinking critical thinking?* and finally, *what is thinking anyway?* would serve to embarrass, to disturb, and worse to gene-



rate confusion where such confusion is not initially apparent.

This is not to suggest that no one could offer a neat and consistent definition of this basic concept. On the contrary, it should be assumed, as it is here assumed, that an explicit commitment to the value of critical thinking entails an understanding of the concept where such understanding is ultimately reducible to simple and concrete operations.

The object of this paper, therefore, is modest in nature; that is, to work out a definition of "critical thinking", or what is the same, offer a more systematic interpretation of "critical thinking" especially as this concept occurs within the scheme of our general education program. It is hoped that such definition would reflect the original intentions of the designers of the program, and further, that such definition would more or less be in line with the views of those who regard critical thinking as a unique value in connection with the student's intellectual development.

Before proceeding with this analysis, it would be well for us to reconsider certain fundamental assumptions not only of general education but also of education in general. These assumptions, as will be noted later, will have some clear relevance to the problem of this paper.

One of these assumptions is that which has to do with the ultimate objective of education. In other words, the fact seems inescapable that education, being essentially a human enterprise, must call for very definite objectives; hence it is reasonable to demand for the explicit statement of such objectives. From this it would follow that the question, "What is the ultimate goal (or goals) of education?" should be met with a straightforward reply. An educational program that cannot speak of a definite objective can have no validity, primarily because

there would be no way of establishing its validity. Thus, if at all, a particular educational program is carefully thought out, one must be able to specify the definite objective or objectives of that program. Further, it is required that such statements of objectives must not be presented so ambiguously as to be incapable of concrete empirical interpretations.

Meanwhile, it may be argued that it is misleading, if not frustrating, to ask for an ultimate objective of education in general, for the objectives of education are not uniform for all societies for all times. Different social circumstances may call for different objectives. Be that as it may, the proposition still holds that education is a goal-directed affair, and we shall be far better off in our educational theorizings if this goal occurs to our minds clear and distinct.

It is a matter of fact, however, that the choice of a goal or the specification of a goal involves some kind of value judgment, and this is the very reason, as argued by some, why educational theorizing is a complex affair; more so when one is unable to distinguish between a value judgment and a recitation of facts.

What is an educational program for? This question can be answered in various terms. Considering the vast literature on education, this question has been answered in a manner so general as to escape simple understanding. Not only that, the answer to the question is oftentimes determined by underlying values of individuals or institutions. And these underlying values serve to limit or extend the objectives of education. For instance, it is not uncommon for a person committed to certain religious values to define the objectives of education in accordance with these values. Education, he might say, is fundamentally *education for religion, or for God*. Another person with strong moral commitments would in-



mean, discussions about programs of education must ultimately rest upon certain epistemological theory. This is most readily seen if the fact is stressed that we are here dealing essentially with the formation of knowledge.

Moreover, without unduly anticipating our conclusion, we may mention here that it is only after facing the epistemological, or if you may, philosophical, question what does it mean to have knowledge of a given subject matter? could we discover the significance of the concept "critical thinking" as used in our general education program.

Among some contemporary philosophers, the so-called problem of knowledge could be reduced to a simple and direct question: (1) what do we know? (2) how do we know?<sup>1</sup> Some philosophers seem to be content with this simple reduction, although to my mind the reduction is as misleading as the original epistemologic problem. The question is misleading because it seems to ignore one fundamental feature of knowing, that is, knowing, like thinking, is subject matter directed. One cannot be said to know unqualifiedly. Or that knowledge is not merely a state of mind independently of any subject matter as some would like to believe. The better question should be, "What does it mean to say that so and so knows x?" where in this case we may vary the value of x. And as we vary the value of x, say, a person, a theory, a physical object, etc., the meaning of the term itself varies.

This kind of analysis, by the way, forms the central thesis of contemporary philosophy particularly those who consider philosophical analysis as analysis of language *in use*.<sup>2</sup> But certainly one need not have sophisticated knowledge of philosophy to understand that the meaning

<sup>1</sup> See H. Feigl's "Logical Empiricism," *Readings in Philosophical Analysis* (New York: Appleton-Century Crofts, Inc., 1949), pp. 3-26.

<sup>2</sup> Cf. Alfred Jules Ayer, *Language, Truth and Logic* (New York: Dover Publications, 1946), pp. 59-71.

of certain basic terms can be determined more easily within the context of its occurrence.<sup>3</sup>

Hence, for our limited purposes, it is indeed more fruitful to ask a more specific question like, what does it mean to say that one knows some historical facts, a political theory, an economic principle, a mathematical operation, a physical law, etc., than to raise the general, and therefore obscure, question what is knowledge?

Without having to mobilize a host of technical philosophical terminology commonly used in dealing with problems of this nature let us briefly consider here certain obvious features of knowing a definite subject matter.

Take the case of knowing an *object of perception*, say a table, a pencil, or a telephone, etc. These objects can be said to belong to the same class, that is, insofar as they are all objects of perception. What does it mean to say that one knows that object as a table, or as a pencil, or as a telephone? Basically, we say that initially there is the perceptual experience involved: that the person who claims knowledge of the object *perceives* the object. But in admitting this we need not equate perceiving with knowing, as some philosophers are apt to do. Perceiving here is used in the sense of having impressions, sensory impressions that is, of a given object. And to have sensory impression of an object does not necessarily mean knowing the object since it makes some sense to say that one perceives an object but still does not know what it is.

<sup>3</sup> It may be argued in this connection that even if the meaning of certain terms vary from context to context yet something in common is retained, and that which is retained is the more philosophically interesting. This conclusion by itself has certain validity, although it cannot be established *a priori*, that is, it cannot be validly held that since the same word is used, therefore, the same meaning is retained. The argument is essentially verbal or nominalistic and the history of philosophy is replete with this type of verbal disasters. That there are similar features in knowing x, however one varies the value of x, must be established by actual investigation.



Knowing, therefore, as distinguished from perceiving is of a higher level. As C. I. Lewis puts it, knowing transcends experience,<sup>4</sup> where by experience he meant perception. To say that one knows that object as a table, or as a pencil, or as a telephone is in effect not only to perceive the object but also to be able to subsume that object under a certain category or class. We may add to this certain logical components like being able to define the class or being able to indicate the properties or qualities an object must possess to count as a member of the class.

Knowing a person is quite another matter. Here, there are also the corresponding perceptual aspects, like being able to recognise the person as Mr. so and so, when one meets him. There are usages of the phrase "knowing a person," however, which goes beyond the ability to identify. For instance, knowing a person may include the ability to predict his behaviour in certain social circumstances. Examples of this are locutions like: "If I know him he wouldn't act as you think he would." "If I know him, I know what he would do... etc."

Knowing a political theory is still another matter, for in this case it is required that one is not only acquainted with the principal ideas of the theory but also the logical relationship of these ideas with one another and further how the theory connects with actual political behaviour.

Knowing a mathematical operation would mean not only acquaintance with the mathematical principle or rule but also being able to apply this rule consistently within the framework of the system where the rule belongs.

<sup>4</sup>C. I. Lewis, "Knowledge of the Given," *Philosophic Problems*, Mandelbaum, et. al. (eds.), (New York: MacMillan Company, 1959), p. 151.

Knowing a physical law, again, does not mean mere acquaintance with the law but also being able to use the law when demanded by circumstance, like being able to predict certain physical processes or being able to relate one physical event with another as the law contemplates such relation.

Knowing a historical fact or event does not mean mere awareness of the said fact or event. It is also, and basically, being able to indicate the significance of this fact in relation with others. For instance, a person may be aware that the Philippine Revolution took place within the year 1896. Insofar as this event occurs in the mind of the person as an isolated event, that is, its relation with other historical events in that crucial stage of Philippine history remains obscure, the person cannot be said to know. He may be said to be aware merely of a single item in history, but knowledge of this item is indeed something else.

The foregoing are only some dominant examples of knowing something. There is no claim that we have exhausted all the different kinds of knowing. It is indeed possible that there are other species of knowing, and if there are then it remains equally logically possible to indicate the operations involved in the process.

Our interest in the analysis of the process of knowing, or in the so-called formation of knowledge has some intimate connection with the basic problem of this paper, that is, critical thinking. But before indicating this connection, it would be well to emphasize certain points brought out in the foregoing discussion, namely, that knowing a subject matter includes not only awareness of the subject matter but also, and more crucially, the determination of the relationship (whether internal or external) of the subject matter. It may also be noted that the nature of such relationship is determined funda-



mentally by the subject matter itself, as in the case of the physical processes, we may speak of the discovery of the physical relationships of physical objects. In the case of mathematical studies, we may speak of the mathematical or formal relationships of mathematical entities.

Now, if knowing is understood in the sense indicated above, then it becomes obvious that knowing is in effect a procedure or operation of integration or construction. It is the search for a pattern or an order.<sup>5</sup> Assuming this point of view, we may now be able to appreciate in a better fashion the proper signification of the popular thesis that scientific knowledge, say in physics, is nothing more than the ordering of the natural processes.

We need not prolong this discussion on the foundation of knowledge. We may now go into the original question raised in this paper, namely: what is critical thinking? and further, how is critical thinking related to the formation of knowledge, where the latter, we maintained, is the primary objective of an educational program?

The answers to these questions are now no longer difficult to formulate. For it could be said briefly that critical thinking here refers to the very thought-process that is involved in every act of integration. And hence, critical thinking is the very methodology that is used in the attempt to form that we call knowledge. In other words, in every attempt to form knowledge of any given subject matter, the person must necessarily think critically about the said subject matter, and to think critically about this subject matter is precisely to formu-

<sup>5</sup>There is a philosophical problem that bears on this particular point, that is, whether this pattern is objective and hence discovered, or imputed hence formulated. It is not, however, necessary for us to assume either one of these alternatives. Suffice it to say that the latter alternative is the more popular among contemporary philosophers because it does not commit us to any metaphysics.

late or discover the unity of the subject matter, whether such unity be internal or external.

Critical thinking therefore becomes essentially a constructive effort and a person who has been trained to think in this manner is always dissatisfied with mere isolation or recording of facts. He always seeks to go beyond the bare data presented to him. He looks for the unity of things or of ideas, and by extension, the unity of the world as such, for it is a part of the assumption of science or of knowledge that the world is an integral world, that there are certain invariant relationships which bring events or things together into one system.

There are those who speak not only of critical thinking but also of a critical attitude. I would like to believe, in this connection, that by critical attitude they mean the various assumptions which in turn define the methodology of search or of analysis. For instance, the very dissatisfaction that arises in the face of isolated data or facts or ideas is a result of the implicit assumption that somehow these data must have some kind of relationship with one another. Plainly, a collection of ideas that do not show any specific logical relations cannot be said to be a group of significant ideas. At most we have a collection of words or concepts. We cannot be said to have knowledge of this collection, or to use a more popular but oftentimes mis-construed term, we cannot be said to *understand* the ideas. The same thing happens when we are confronted with an event which we cannot explain, or we cannot relate with other events within the same field of events. We are dissatisfied, for our minds demand the perception of the relation of this event with others, either with the past, present or even future controllable events. This kind of dissatisfaction is essentially an emotional attitude which has been shaped by our implicit intellectual commitments, not only about the world but also about knowledge.



If critical thinking is then understood as a way of dealing with a given subject matter, or more specifically, critical thinking is the search for coherence in a subject matter, whether it be ideas or facts, a final question comes to mind, namely, how does one develop this technique?

There is no one definite way of developing critical thinking. But certainly one of the most effective ways of shaping critical thought is by example, that is, the teacher must himself show that he is capable of pursuing critical thinking, and by this again we mean that the teacher shows by example the actual analysis of a subject matter. Some examples can be cited here. For instance, confronted with a political theory, or perhaps, a political conceptual model, it would not be enough that the students are made aware of the fundamental assumptions of the model. The teacher may also show certain logical consequences of these assumptions, or what is the same the logical coherence of the conceptual scheme. In performing an analysis of this sort the teacher in effect has brought to the attention of the student the internal unity of this scheme. Furthermore, if the situation warrants, the political model could also be considered in the light of certain existing empirical facts. It may be shown how the political model aids in the understanding or prediction or systematization of empirical conditions. Or if we are concerned with an examination of a political philosophy, specifically, a set of political prescriptions, we may show the logical consistency of the prescriptions, and further the empirical validity of these prescriptions. It may be that the prescriptions assume certain idealized and hence non-existent state of affairs, which would only mean that the political philosophy is at best a magnificent logical exercise.

In teaching the sciences, say physics, the teacher may require from the students not merely capacity to

state as given physical law, but also the perception of the coherence of certain physical laws in one theoretical system. And if the situation warrants, as in the case of many courses in the sciences, the application of a law in terms of prediction of events becomes very valuable. We may add to this the attempt of the teacher to indicate to the students the role of conceptualization in science, particularly the formulation of scientific fictions with a view to effecting a unification of phenomena.

If instruction is carried out in this manner, the educational scheme can be said to be truly developing a persuasion of the mind that is critical. Not only that, the condition of education will be such as to sharpen the analytical tools of the students in facing any intellectual problem. Students who are trained in the search for coherence will most probably develop that scientific attitude and assume a *weltanschauung* that would develop them into positive contributors to the so-called wealth of knowledge which, by the way, is the very justification for the existence of universities.



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