

Tert-Book Series

EDITED BY PAUL MONROE, PH.D.

TEXT-BOOK IN THE HISTORY OF EDUCATION.

BY PAUL MONROE, PH.D., Professor of History of Education,
Teachers College, Columbia University.

SOURCE BOOK IN THE HISTORY OF EDUCATION.

FOR THE GREEK AND ROMAN PERIOD.

BY PAUL MONROE, PH.D.

PRINCIPLES OF SECONDARY EDUCATION.

BY PAUL MONROE, PH.D.

TEXT-BOOK IN THE PRINCIPLES OF EDUCATION.

BY ERNEST R. HENDERSON, PH.D., Professor of Education and
Philosophy, Adelphi College.

DEMOCRACY AND EDUCATION. AN INTRODUCTION TO THE PHILOSOPHY OF EDUCATION.

BY JOHN DEWEY, PH.D., Professor of Philosophy, Columbia
University.

STATE AND COUNTY SCHOOL ADMINISTRATION.

SOURCE BOOK.

BY ELLWOOD P. CUBBERLEY, PH.D., Professor of Education,
Stanford University, and EDWARD C. ELLIOTT, PH.D., Pro-
fessor of Education, University of Wisconsin.

STATE AND COUNTY EDUCATIONAL REORGANIZATION.

BY ELLWOOD P. CUBBERLEY, PH.D.

THE PRINCIPLES OF SCIENCE TEACHING.

BY GEORGE R. TWISS, B.Sc., Professor of the Principles and
Practice of Education, Ohio State University.

THE PRUSSIAN ELEMENTARY SCHOOLS.

BY THOMAS ALEXANDER, PH.D., Professor of Elementary Edu-
cation, George Peabody College for Teachers.

HOW TO MEASURE IN EDUCATION.

BY WILLIAM A. MCCALL, PH.D., Assistant Professor of Educa-
tion, Teachers College, Columbia University.

A HISTORY OF THE FAMILY AS A SOCIAL AND EDU- CATIONAL INSTITUTION.

BY WILLYSTINE GOODSSELL, PH.D., Assistant Professor of Edu-
cation, Teachers College, Columbia University.

THE EDUCATION OF WOMEN.

BY WILLYSTINE GOODSSELL, PH.D.

STATISTICAL METHOD.

BY TRUMAN L. KELLEY, PH.D., Professor of Education, Stan-
ford University.

SOURCE BOOK IN THE PHILOSOPHY OF EDUCATION.

BY WILLIAM H. KILPATRICK, PH.D., Professor of Education,
Teachers College, Columbia University.

FOUNDATIONS OF EDUCATIONAL SOCIOLOGY.

BY CHARLES C. PETERS, PH.D., Professor of Education in Ohio
Wesleyan University.

A HISTORY OF EDUCATION IN THE UNITED STATES.

BY PAUL MONROE, PH.D.

In Preparation

FOUNDATIONS
OF
EDUCATIONAL SOCIOLOGY

BY

CHARLES C. PETERS, Ph.D.

PROFESSOR OF EDUCATION IN OHIO WESLEYAN UNIVERSITY

New York

THE MACMILLAN COMPANY

1927

All rights reserved

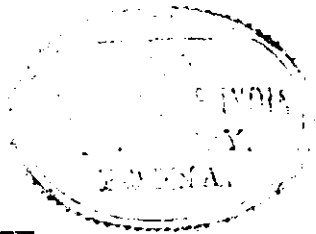
TOLBY
F7

COPYRIGHT, 1924.

By THE MACMILLAN COMPANY.

Set up and electrotyped. Published June, 1924. Reprinted
December, 1924; August, 1925; April, 1926; May, 1927.

7712



PREFACE

FOUNDATIONS OF EDUCATIONAL SOCIOLOGY may perhaps be a pretentious title for a book which does not set forth all the basic laws of a fully developed science but is intended as a contribution toward the establishment of such a science. A more accurate title might be "The Beginnings of a Science of Educational Sociology." I have undertaken to outline and illustrate methods by which the objectives of school education can be scientifically determined. The use of these methods is only in its infancy, but a thoroughgoing reconstruction of education should ultimately result from their application. Because I wish to stimulate research and reconstruction, I have introduced into this book accounts of some very incomplete studies, the findings of which may not in themselves be of much significance but which may, I hope, suggest procedures for more far-reaching studies and serve as evidence of the feasibility of such studies. The discussion of these investigations constitutes a large portion of Part II of the volume, and of the three appendices. Many of the problems at the end of each chapter call for similar quantitatively controlled research on the part of the student.

A science of Educational Sociology must be built up from a very large number of such researches. The making of many detailed scientific studies, most of them of small scope in themselves but supplementary to one another, is the task that has occupied educational psychologists during the past twenty years, and a similar task confronts educational sociologists for the next decade or more. When a body of experimental literature shall have been made available by such studies, a text-book in Educational Sociology very different from the present one will be possible. There is need for an Educational

Sociology that will be parallel to, and equal in importance to, Educational Psychology. But to attain this status Educational Sociology must cease to be a philosophy; it must, instead, employ the quantitative methods of science.

Educational Sociology should not be construed as merely sociology for teachers. It should not seek to study sociology from the standpoint of education but rather to study education in its sociological aspects. The educational psychologist shows how education should be adjusted to the needs of the individual; the educational sociologist should show the adjustment of education to the needs of society and the bearing of group phenomena upon the educational procedures by which these needs must be met. Thus Educational Sociology is a branch of Education even more than it is a branch of Sociology.

In teaching Educational Sociology it is my custom to save four or five weeks for a detailed study of some of the objectives of education, so as to start students in the habit of making definite applications of the general principles set forth in the course. During the first part of this time we go through analyses of culture, citizenship, health efficiency, morality, and domestic and vocational efficiency, so far as our time will allow, using the material here given in Appendix A and handling it after the manner shown on pages 391-394. The remainder of the time we give to an analysis of the objectives of three or four high school subjects, as types. We analyze, for example, the objectives of the teaching of history, inquiring what it can be made to contribute to culture, citizenship, morality, vocation, health, and domestic efficiency, and how it must be handled to enable it to make these contributions. In order to have the search as complete and systematic as possible, we go through the several analyses given in Appendix A, asking ourselves to which of the items listed there the subject in question can be made to contribute. Of course this procedure must rest largely on empirical bases at present, and can become scientific only after we have the results of much longer series of parallel-group experiments on methods and educational values than

we have now, but it has served well in my experience to clinch the idea of thinking of education in terms of preparation of abilities for meeting the specific needs of life.

A part of the material of this volume was written as early as 1916, and as much as a third of it by 1918. All of it was finished before the two very valuable recent books on the curriculum appeared—*Charters' Curriculum Construction* and Bobbitt's *How to Make a Curriculum*—so that only incidental references could be made to them. The same viewpoint dominates this book as that which controls in the books of Charters and Bobbitt, yet there is very little actual duplication in content, and I hope that the part of mine which deals with the curriculum may prove of value as a supplement to theirs. The materials of this volume have been used in typewritten form by nine different classes in Educational Sociology during the past four years at Ohio Wesleyan University, West Virginia University, and the University of Kansas.

It is clearly impossible for me to acknowledge here my obligations to all the many scholars upon whose work I have drawn, but I cannot refrain from mentioning two of them. My idea of analyzing educational aims into detailed objectives, and testing them by the principle of relative utility, I got from Professor A. Duncan Yocum, more than ten years ago, though he must not be held responsible for the way in which I have carried out this idea. The vast obligation I owe to Professor David Snedden will be obvious to any reader who observes the frequent references to his work, or to anyone who notes the similarity between my point of view and that of this stalwart pioneer in the study of educational objectives.

My hearty thanks are due to a number of persons who gave me valuable constructive criticisms on the manuscript. Naturally I received many useful suggestions from Professor Paul Monroe and Dr. I. L. Kandel who edited the book. Dr. Charles W. Coulter, Professor of Sociology at Ohio Wesleyan University, also read the whole manuscript and pointed out desirable revisions. Mr. Miles H. Cagg and Miss Marie Dren-

nan, from the Department of English at Ohio Wesleyan, have earned my gratitude by reading the whole work and indicating needed improvements in style. In addition, a number of others read individual chapters and made useful suggestions regarding them.

My thanks are also due Charles Scribner's Sons, J. B. Lippincott Company, the World Book Company, D. Appleton and Company, the Century Company, Houghton Mifflin Company, the University of Chicago Press, the Bobbs-Merrill Company, and the Macmillan Company, for permission to quote copyright material from their publications.

C. C. P.

DELAWARE, OHIO,

MAY, 1924.

TABLE OF CONTENTS

PART I

PRINCIPLES OF EDUCATIONAL SOCIOLOGY

CHAPTER	PAGE
I. OUR PROBLEM.....	3
II. THE FUNCTION OF EDUCATION IN SOCIETY.....	20
III. THE NATURE AND FUNCTION OF THE SCHOOL.....	40
IV. UTILITY AS A CRITERION FOR CURRICULUM BUILDING..	55
V. SCIENTIFIC BASES FOR RECONSTRUCTION OF THE SCHOOL CURRICULUM.....	75
VI. DEMOCRACY AND EDUCATION.....	88
VII. VOCATIONAL GUIDANCE.....	119
VIII. THE COLD STORAGE PRINCIPLE IN EDUCATION.....	146
IX. AGENCIES THAT EDUCATE—ASSOCIATION.....	157
X. THE FAMILY AS AN EDUCATIONAL AGENCY.....	167
XI. THE CHURCH AS AN EDUCATIONAL AGENCY.....	194
XII. OTHER NON-SCHOOL EDUCATIONAL AGENCIES.....	206
XIII. SOCIALIZATION.....	226
XIV. SOCIAL CONTROL.....	246
XV. PROGRESS AND THE RELATION OF EDUCATION TO IT..	270
XVI. ORGANIZATION OF THE CURRICULUM.....	293

PART II

SCIENTIFIC METHODS FOR DETERMINING THE OBJECTIVES OF SCHOOL EDUCATION

XVII. SCIENTIFIC METHODS OF ISOLATING THE OBJECTIVES OF EDUCATION.....	315
XVIII. DEFENSE OF THE SURVEY METHOD FOR DERIVING NORMS.....	354

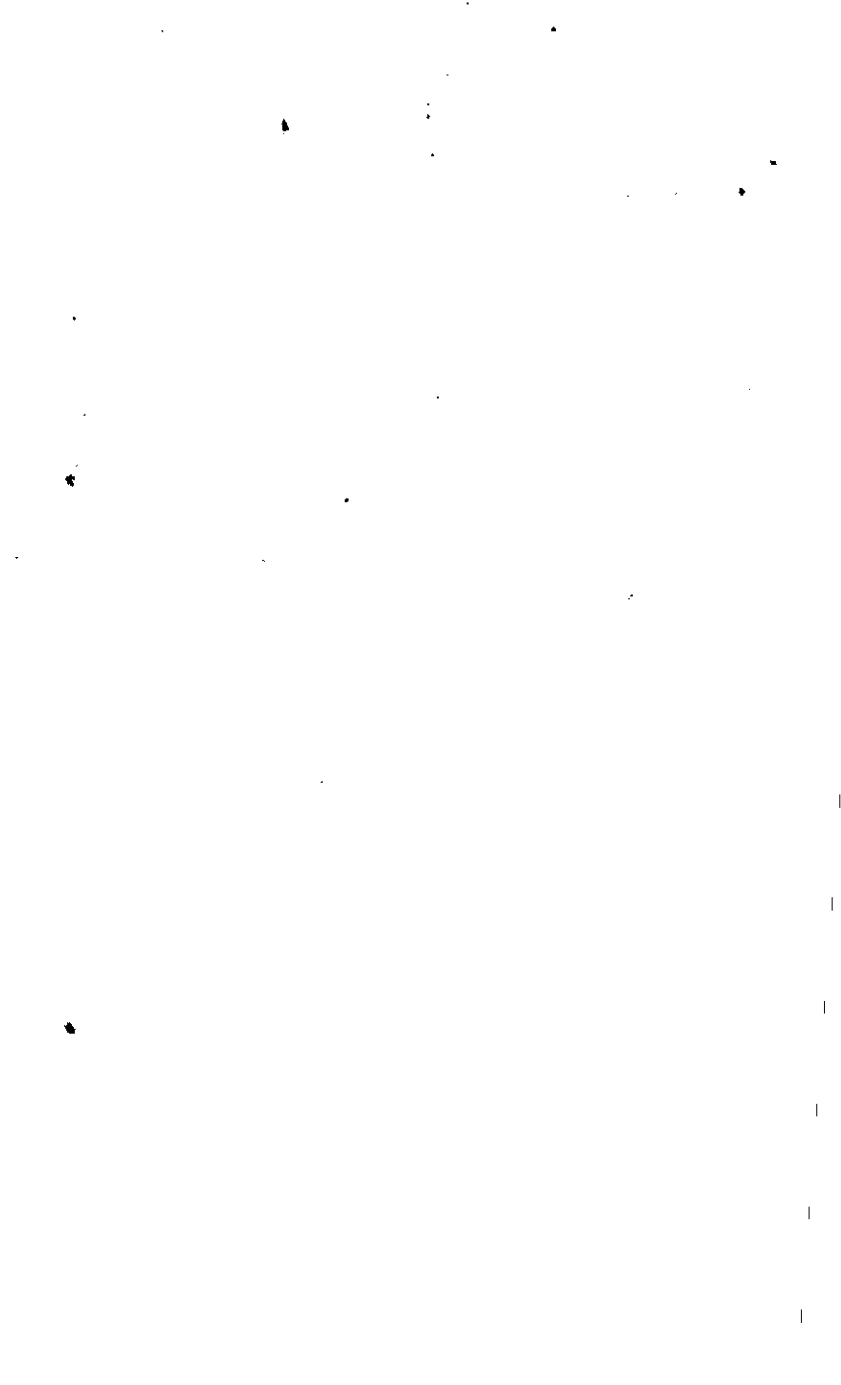
CHAPTER	PAGE
XIX. METHODS OF FINDING THE RESIDUAL FUNCTIONS OF THE SCHOOL.....	366

APPENDICES

A. ANALYSES OF SOCIAL EFFICIENCY: TENTATIVE LISTS OF OBJECTIVES OF EDUCATION.....	391
B. DETAILED ANALYSIS OF ONE OBJECTIVE OF CULTURAL EDUCATION.....	419
C. TEST OF GENERAL INFORMATION WITH SOCIOLOGI- CALLY DETERMINED WEIGHTINGS.....	425
INDEX.....	441

PART I

PRINCIPLES OF EDUCATIONAL SOCIOLOGY



FOUNDATIONS OF EDUCATIONAL SOCIOLOGY

CHAPTER I

OUR PROBLEM

It was on one of those mystic October days when the sun shines dimly and coldly through the light clouds that I was walking dreamily down the streets of the little city of Oneirapolis. As I passed along I saw a negro lad, blue-shirted, collarless, feet dangling far out of trousers inartistically fringed at the bottoms, and evidently on either temporary or permanent vacation from regular work, sitting upon a store box by the grocery entrance and whittling away at a piece of white-pine wood. I asked him what he was making. "Why, boss, I ain't ezzactly thought about that," he answered. "Well," I said, "but there must be something you're trying to whittle out." "O yes, it'll come out to be somethin' or other; it allas does. Sometimes U make u long point on ut an' then U cut ut down like u willow-w'istle an' then U make rings aroun' ut. But U jus' w'ittle away an' ain't tryin' to make nuthin' in partic'lar."

I left him, meditating as I went on the folly of spending time whittling at a stick without trying to make anything in particular. Presently I noticed across the street a quaintly attractive little house, or shed perhaps, a long, bungalow-like building with plate glass running from top to bottom in strips some eighteen inches wide supported by a dark brown wooden frame. The charm and the evident up-to-dateness of the place impelled me to enter and examine. I soon found to my delight, because I love to work in wood, that this was

some sort of carpenters' or cabinetmakers' shop. Decent looking workmen were industriously plying their trade. But what they were making looked odd to me; I could see no consistency in it. So I ventured to ask a workman who stood by me, what sort of shop this was. "Why this," he replied, "is the Andalian Cabinetmakers' Shop." "But what are you making here?" I pressed. "Oh, just about anything," he informed me. "You see we run this place on democratic principles. Each workmen decides for himself what he will do. I have here a very fine ax that was made in my grandfather's day—perfect steel, better than anything made to-day. I like to use it. It is certainly a keen cutter." "But what do you make with it," I inquired, with something, I am afraid, of a supercilious air. "Oh sometimes one thing and sometimes another. When I come into the shop I look around to see what sort of lumber I have to work with. If there is lying handy a piece of good, straight-grained material like this (picking up a piece of clear oak and showing it to me), I split it with the ax and trim down the edges. If it is not straight-grained, I do not cut it at all but use it whole, nailing other pieces to it. You see my ax is a single-bladed one, adapted to driving nails as well as to cutting."

I then began to perceive, or fancy I did, that I was speaking with a person not wholly responsible for the categories of his thinking—perhaps some relative of a member of the firm allowed to remain in the shop as an indulgence. With a certain sense of pity for the unfortunate fellow-mortal and duly grateful for my own sanity, I passed on to the next workman, and from him to the next, and so on until I had interviewed them all. I gathered that each fellow entered the shop with no idea of what he was to make, that he took up any tools and any lumber that happened to lie near at hand, and began to saw at the material and to nail and glue the pieces together in whatever fashion seemed convenient. Upon my protestation that it did not seem to me that such procedure would go very far in producing valuable pieces of furni-

ture, each workman in turn (for each was both allowed and urged to defend his practice) smiled upon me patiently and explained that it made really little difference what was done in the shop if only it were well done. He pointed out that the pieces which the men were making were of very solid material, firmly glued and nailed together. It would be easy to make them over into anything that was wanted when the occasion arose. Legs could be set under or sawed off as needed. Extensions could be tacked on. If there were projections to the piece not needed for the immediate purpose, some use could surely be found for them.

As I myself am in the habit of piling up any exposed parts of parlor tables, shelves and pianos with hats, books, and papers, and could easily use an infinite amount of space in this way, I could very well appreciate this last argument. I confess that the whole thing did seem a little strange and confusing to me, but I concluded that the little I ever knew about cabinetmaking must be out of date, that I was really very much of an amateur, and that these smart looking fellows must know their own business.

Trudging slowly down the street with this sense of senescence weighing down upon me and taking the sprightliness out of my step, I next came to what was evidently a large clothing factory, located on the corner of Garfield Street and Huron Avenue. Its sides were made of large sections of plate glass with only narrow iron supports between. Within many alert looking tailors were working deftly. Entering the huge room, I could easily discern that modern efficiency measures were being applied everywhere. The cloth was piled in ways that made it easily accessible to the workers. Specialists went about examining the scissors used by the workmen and quickly and skillfully sharpening those that did not meet the ingenious test for keenness. Inspectors passed around rating the efficiency of the tailors and occasionally giving them words of encouragement, censure, or constructive suggestion. The operations were all timed so that they moved

off all over the room with a synchronism that challenged admiration. *But I found myself unable to decipher what they were making.*

So, with a deference appropriate to such a wonderful establishment, I ventured to inquire from one of the inspectors what these workmen were doing. Although he was obviously a busy man, he courteously paused from his work to explain the system to me. He said that the tailors were cutting up the goods. "But why?" I asked. "What for?" Gathering from his puzzled look that he did not quite understand me, I continued, somewhat embarrassed, "What are they trying to do?" "Why," he replied, evidently now getting my meaning, "they are cutting up the goods. Every workman is provided each day with a pile of goods containing a prescribed amount of material. It is his business to cut it up into pieces not exceeding a given size. We inspectors go around seeing to it that each one gets through his assignment on schedule. If any one is failing to do so, we counsel with him regarding means of saving time by eliminating waste movements. We ourselves take courses on economy in the cutting of goods, in which we are kept informed of the results of elaborate experiments on the best way of holding the scissors, dimensions and shape of pieces that are best for getting the largest amount of goods cut up in a given amount of time, etc. The factory maintains a laboratory of research workers for investigating these things, and we see to it that the results of these studies are put into practice by the workers at the bench."

I was just going to press further my original query as to what this was all for, what they were trying to make out of all of these pieces they were cutting out, that surely the workers were each trying to do something more than merely get through their piles, when my informant luckily forestalled what would have proved to be a very stupid, or even impertinent, remark by continuing:

"You see manufacturing in this plant has at last become a

science. We no longer depend upon lump impressions; we have learned to employ actual measurements. Our research workers have devised schemes by which it is possible to compute quite rapidly the number of pieces cut by each tailor, the median area of such pieces, the standard deviation of the several pieces from this median, and the coefficient of variability in the work of each benchman. We also rank the workmen according to their ages, the median amount of goods cut up in a day, the coefficients of variability in their work, and the wages paid to them, compute a multiple coefficient of correlation among these four arrays, and promote or demote accordingly."

At this account of scientific procedure, and particularly at this mention of multiple coefficients of correlation, I became at once very humble and could reply only in subdued and, I fear, somewhat incoherent syllables of awe and of respect. In spite of the thermostat the room seemed to me hot and stuffy (if I may talk so prosaically about so great a place). I shuffled my way to, and out through, the heavy door, with a sense of the vastness and the wonder of the reaches to which the human intellect can attain—but with a certain heaviness and a restless perplexity weighing down upon the upper chambers of my heart.

Just to divert my attention from the bewilderment in which it was still enmeshed, I purchased a paper from the vociferous newsboy on the corner, hoping to find entertainment for awhile. But on the first page was a news item that distressed me. It appeared that war was still on. The write-up referred to our extremely heavy losses in men and supplies and the smallness of our gains. Happening to espy an acquaintance who is high in the councils of the local political organization, I accosted him, begging him to tell me about our war activities. He assured me that huge losses in compensation for small gains were inevitable. The army, he said, had to take its chances. Raids were made every day; sometimes the men found something worth taking and sometimes they

did not. Sometimes they found the way ahead of them entirely clear, and sometimes they fell into a net of surrounding enemies. Huge cannon, he went on, were in operation all day long. Occasionally they hit something important, but, of course, not often. The guns, he said, were most systematically handled, too; they were all directed by deliberations of congress. Some of the members of congress had been on the field years before; the others had read about the place in their geographies. One of the members, he related, would move that the guns be trained in a certain direction, in which direction the logic of the situation led him to believe there lay a place worth hitting. Another member, opposing, would move that they be pointed in a certain other direction. Still other members would demand other directions. At length they would decide to compromise and to point the guns somewhere between these several places!

This was becoming too terrible. I could not endure it any longer. I wrenched my shoulders and drew a stifled breath—and a train of new sensations broke in upon me.—I was at last awake from my nightmare and the daylight was beginning to illumine the room. But, unable yet to shake off the depression of the dream, I dressed and hastened out to assure myself that the world was still rational. I soon discovered that a cabinetmaker works quite otherwise than did those of my bad dream. He comes to his workshop with a definite idea of what he wishes to make. He casts about for wood that will best serve his purpose. Then he takes up such nails or hammers or saws or glue as he needs for the embodiment of his idea. Never does he make a single saw-cut or push along his board a single plane or drive a single nail unless he has definitely in mind just how that act relates to the end toward which he is working. I learned, too, that the same thing is true of a tailor. From first to last he has before him his image of the concrete suit of clothes he is to make, and every cut or stitch he takes is guided by this as goal. I found the same thing pre-eminently true of modern military activity. All war

manœuvres are made in pursuit of definite objectives. During the world war the reports stated continually that "the army reached all of its objectives," or "reached its ten o'clock objectives by nine o'clock," or "failed to reach its objectives." Obviously all of the systematic activities of the military are directed toward the achievement of certain definite ends formulated in advance, certain clearly defined goals, reasonably susceptible of attainment, marked out for the hour's effort. No dependence is placed in any mere rush toward the enemy. In modern warfare it is not sufficient that a general know the manual of arms, that he be able to command due respect and obedience from his subordinates, that he keep his supply-train moving systematically, or even that he be able so to inspire his soldiers with hope and courage that they be willing to make uncounted sacrifices to win the battle. He is a good general only secondarily because of these routine and inspirational factors, but primarily because of his power of *military strategy*. He must be able to study the situation objectively, and intelligently map out policies. He must mark out specific and attainable objectives for definite times and keep his whole machinery moving with precision through this schedule to his ultimate goals. If he does not keep his manœuvres carefully aligned with such well-considered objectives, he is sure to waste time, supplies, and men in fruitless undertakings; for even if he win in these unplanned raids, his victory has no real value with reference to the total situation, often even weakening his position by putting a part of his line in an unnecessarily exposed condition.

I was charmed, I will admit, with all these reassuring evidences of the rationality of my fellowmen. And, in my enthusiasm, I resolved to carry my quest for purposiveness into the citadel where I was confident I should find it at its supreme height—into the magnificent high school of the little city, housed in the best building of the town and the pride of the townsmen. Having heard that Latin is the most substantial and respectable of high school subjects, I be-

took myself first to the teacher of that subject. She was soon to have a class in Cæsar. She explained to me that the most valuable power anyone can possess these days is the power of clear, forceful, and attractive expression; that whether one is to be congressman, salesman, or even carpenter, his effectiveness will be largely determined by his command of language; that our present civilization is an inheritance from Greece and Rome; that the world's greatest literature is in the Latin tongue; and many more things of like tenor. I confess that I was greatly thrilled and could scarcely wait until the hour should begin in which all these great matters were to be learned.

At length the class assembled. Expectantly I took a seat at the rear corner of the room—an extra chair which the teacher was so kind as to have brought in for me—and watched with envy the pupils as they filed into the room. After the roll had been marked, the lesson began. A pupil—a boy—was asked to read the Latin. He arose in his place and pronounced the words in order, but without any special stress or grouping. At two or three places the teacher stopped him to ask rather sharply such questions as, "How do you pronounce long 'a'?" Well why don't you say it that way when you read?" After having read several lines in Latin, the teacher asked him to translate. Personally I suppose that Cæsar had originally intended to say something, and I gathered that it must have been something about soldiers—possibly about Helvetian soldiers—but what it was I could not quite make out from the translation. Even when the teacher read the section I could not be sure just what Cæsar had done, so odd were the idioms used in the translation. I felt rather sure that the class had no very clear idea of what they had been reading about during the past few weeks. The teacher then asked for the construction of various nouns and verbs. After the assigned fourteen lines had been covered in this way, twelve minutes of the period still remained. These, the pupils employed by turning into Latin two sentences dictated to them

in English by the teacher. These sentences, it appeared from the explanation given to me, gave training in certain Latin idioms which Cæsar had used in this chapter.

Since the sort of language used in the translations was not such as to train anyone in the power of clear, elegant, and forceful English expression but rather such as to spoil the habits that had been built up in the English classes, since nothing had been done to give the pupil a new insight into the meaning of English words or structures, since the section read seemed not to be a sample of that sublimely great literature about which the teacher had spoken, and since the character of the subject-matter—to say nothing about the fragmentary comprehension the pupils were getting even of that—was not such as to throw light on the foundations of present-day civilization, since indeed nothing done in the class seemed to have any relation to what the teacher had told me in advance, I began to suspect that I had inadvertently fallen asleep and that I was dreaming another bad dream. I had read that in the Middle Ages boys were obliged to learn to read, write, and speak the Latin tongue in preparation for study at the universities because all the text-books were written, and all the lectures were delivered, in that language, and I fancied that I might now be reconstructing the fifteenth century in a nightmare. My previous study of psychology and philosophy has given me such a mental set that I often find myself speculating about a dream while I am having it—being amused at its clarity, studying its fantastic transitions, trying to decide whether it is really a dream or reality. So I entered here upon that sort of speculation. I looked for a calendar. One was on the wall of the room. I was obliged to admit that it read plainly 1923, and no twist of apperception could make 1423 out of it. Still, as I have learned to expect inconsistencies in a dream, I could not take that too seriously. I have found by experience that I can often wake myself out of a nightmare by starting to move some small member of my body—a finger or a toe,

perhaps; so now I drew my toes down tight and even wiggled my foot—but could not awake.

As the period was now over, the teacher was so courteous as to speak with me again while the next class was assembling. I gathered, from her responses to my queries, that her chief aim was to have the pupils learn the grammar well so that they might be able to write correct Latin sentences and to translate Cicero effectively the next year; that by working over Cicero they should be able to translate Vergil the year following; that Vergil should prepare them for translating college Latin; and that most of those who did much with college Latin would return to teach the subject to other high school children just as she was doing. To my modest inquiry regarding its value to the many who would not have occasion to teach it she replied, with a tone of patronage and assurance that made me feel very stupid indeed, that while, of course, they would not use it directly, they would have had their faculties disciplined in such a way that they could turn with power to any occupation. "You see," she went on, "Latin is generally acknowledged to be better taught than any other subject. It has been worked over so long that a body of tested materials and methods have been developed that puts it on a plane pedagogically far above the physical and social sciences or even English literature."

These last remarks reminded me so forcibly of the cabinet-makers, who said that some use could be found for any piece provided only that it be well nailed and glued together, and particularly of their policy of making whatever pieces a planless use of their most keen-cutting tools chanced to hammer out, that I felt doubly sure I must be dreaming. But, although I pinched down my toes and clenched my fists hard several times, I could not awake.

A little disheartened but still unwilling to give up, I went to other teachers in turn. I found that the teacher of history was ambitious to have his pupils master what they undertook. He reviewed much and organized his material by

outlines. He was ambitious to have more time for history so that he might give an intensive treatment of chronological sections of it. He wished also to be able to supplement more largely from advanced texts and to use source material for the purpose of making the subject more real. Noticing that his text in American History gave extremely brief sketches of recent times compared with earlier periods, I ventured to suggest that he would probably like to treat more fully present-day problems. To my surprise he did not seem enthusiastic about that, holding that good history cannot be written when you are too near to the events related. Just as the Latin teacher had spoken about training in expression and about appreciating the roots of civilization but had done nothing to realize these ends, so the history teacher talked vaguely about good citizenship but said almost nothing in his courses that would enable the ordinary student to square himself with the problems of the present day; he talked instead only of the past.

I found the teacher of mathematics anxious to get through the scheduled material, and complaining that pressure was required to do so. He was, however, not anxious merely that the pupils cover the topics but also that they master them. And so as I went on I found every teacher talking and thinking in terms of subject-matter, wishing in some way to get his loved subject across, wondering in what sections it ought to be organized, by what methods it could best be presented, how pupils might be induced to take an interest in it. Never did it seem to have occurred to him to make an inventory of the needs of pupils, least of all a scientific study of these needs, and set up the objectives thus determined as ends with reference to which to test his methods and his selection of subject-matter. He seemed to think, instead, that if only he got his subject-matter across it would be sure to find some way of functioning and that the ends of education would automatically take care of themselves. All of this continually reminded me of the tailors whose only aim

was to get goods cut up, and who were always eagerly on the search for methods by which they could get through more material. But bending my wrists and twisting my neck and even pinching myself did not seem to do any good.

Since I had heard college entrance requirements mentioned by several of the teachers, I asked one of them particularly about these. From his reply it appeared that college faculties, or committees of college men, all of whom have had their high school experience either long ago or not at all, get together and prescribe what the high schools shall teach. And this they do, not as the result of long and painstaking scientific inquiry into educational needs and values, but as the result of a few hours' debate eventuating in various compromises among the claims pressed by the several specialists for their particular subjects. This reminded me so strongly of my bad dream about congress decreeing the direction in which the guns should be pointed on the battle field that I shook myself vigorously and pinched myself until it hurt, but in vain; I could not awake.

Some things to think about. As a basis for deciding whether the implications in the above ironical allegory are true, and whether education *does* need a thorough-going study, and perhaps a revamping, from the standpoint of its alignment with valid purposes, think critically through the following queries:

Colleges very generally prescribe for admission two years or more of a foreign language; yet, at least in the early years of the college course, references are never given to books in Latin, French, or German. What is the reason for the prescription? Does it rest on real studies of the needs for success in college or only on traditional and unanalyzed "faiths" regarding educational values?

Professor Snedden has long been pressing the question, "Why should girls study algebra?" Why should they? Particularly why should *all* girls who go to high school *be compelled* to study it? Why should all boys? If your reply is that it is useful in life, take down a typical text in algebra, go through it, and find out how many of its problems have anything in common with the practical life of to-day. If you reply that it is needed for the mastery of later studies, run

through texts in physics, chemistry, economics, etc., and see how much of "algebra" is involved in them. If for mental discipline, look up the present status of the doctrine of Formal Discipline and see into what particular forms you can put your claims so that they will square with the findings of psychology.

It is customary to justify the teaching of history on the ground that it trains for citizenship. Just how? Does all history do this or only some parts of it? Which parts? Having in mind the course in history that you had in the high school, consider what was said in it that probably functions now to make you go to the polls to vote when otherwise you would not go; that helps you to decide between Jones and Smith as candidates at the primary election; that tells you whether or not to vote for a candidate for congress pledged to support a ship subsidy. Does a history teacher generally set out to produce, through his course, the many particular abilities one needs to make one an effective citizen, or does he merely teach *history* with the vague hope that somehow the pupil will be a better citizen for having studied it? Have the many particular abilities that together make up good citizenship ever been scientifically isolated so that a teacher could make them his objectives even if he were anxious to do so? Are there left undeveloped, in consequence of this uncertainty as to objectives, any abilities really needed to meet the demands of present-day citizenship that might be developed in the history course? Give examples.

There has been a good deal of careful study about the best methods of teaching oral reading, and standardized tests have been devised for measuring our achievement in this kind of reading. But why teach oral reading at all? In these days when most people do almost no oral reading outside of school, is it sound economy to spend much time beyond, say, the fourth grade in trying to train children to skill in it? Or, if it is worthwhile for some, is it worthwhile for all? If oral reading is to be taught, what kind of oral reading do social uses demand? Evidently these are questions that ought to be answered prior to the questions as to how most economically to teach reading.

Again, why give so much time to teaching all children to read music? In this day when there are so many facilities for *listening* to music produced by mechanical instruments, what social need is there that every one be able to translate the printed staff into tones for himself? If we could cast aside all traditions and build up our music course in the light of present-day needs, would we lay the stress where we have been placing it—namely, on learning the notes rather than on learning to enjoy music through intelligent listening? Without doubt it is very important from the standpoint of society that some persons be taught to read the notes quite readily, and doubtless it adds something (though

how much only scientifically controlled experiment can trustworthily show) for any one to be able to read the staff, but have we made any frank and objective studies to learn what kind of training, and what amounts of each, are *relatively most valuable* for different classes of individuals?

It may be that all of the studies mentioned above are worth while—perhaps that they even deserve more time than they now get—just as the tools which our cabinetmakers used were doubtless good tools which deserved to be plied even more vigorously than they were. But, just as the tools are likely to render very poor service until we know what we wish to make with them, so we are almost sure to waste time on the school studies until we have determined what ends we wish to attain through their instrumentality and then employ them teleologically with reference to these ends.

We are spending to-day huge sums of money on our high schools and liberal arts colleges in the name of cultural education. But do we know, in terms of the specific elements that make it up, what culture is? If we do not know what it is, how can we hope, without great waste, to pursue it through education? A few days ago reference was made in my office to King Tutankhamen. Not one of several college seniors present had ever heard of him, although the newspapers and journals had for several months been full of accounts of the discovery of his tomb. Why should a college consider it a part of cultural education to know what was going on in mediæval Europe, or the ancient world, but not to know what is going on to-day? Colleges often prescribe for graduation a certain amount of training in foreign languages but they seldom require training in music or art appreciation. By what sort of analysis of culture could we make out that a mastery of French is indispensable for culture, but that the ability to appreciate music and art is unimportant? Is it not true that we are attempting to educate for culture, for health, and for citizenship, while these are only vague and unanalyzed concepts for us, and that in consequence we lose sight of our ends and lose ourselves in an interest in our subjects as such? How different is that from nailing together pieces of wood with no thought of what is to be made, or cutting up cloth merely to get many pieces through the mill?

We have, as we fancy, developed a *science* of education within the past generation. But to what extent has this science included a systematic study of the objectives of education? To satisfy yourself in respect to this try out in turn the conventional divisions of the field of education: history of education, philosophy of education, educational psychology, methodology, school administration and school management, and educational hygiene. What significance can a

study of methods of teaching or of administration have apart from their relation to objectives which are to be achieved thereby? Is it sensible to leave unworked the field of educational objectives while we go on hammering at our study of *economy in the process of education*? Why? Which should logically come first?

But when we undertake to study education from the standpoint of its purposes, we are necessarily drawn into certain other studies. Which of the legitimate ends of education, for example, belong to the school and which can be, or are being, taken care of by other agencies? The home, the church, the press, the movie house, are helping to realize educational ends. What are they contributing? How can the work of the school be aligned with theirs? Again, education must be, in the future, a far more important force for social control than it has ever been before; how can it be made so? Still again, even within the school there are many factors that are contributing to education besides the curriculum—the discipline, the organization of administration, the social life, etc.; how can these be made to play their maximum part? Many social forces operate within the school by reason of the fact that teachers and pupils are associated there in groups; what are these forces and how can they be utilized for the betterment of education?

These are among the problems that Educational Sociology undertakes to study.

Plan of this Book.—It is not possible to carry through in this book anything like the whole of the program of research and reconstruction the necessity for which was implied in the foregoing allegory and the exercises which followed. To carry through such program of reconstruction on a scientific basis will require many years of painstaking research on the part of many co-operating workers, the results of which research, when formulated into constructive programs, will necessitate for their adequate presentation the space of several volumes. Up to the present time we have made only small beginnings in such research. Before Educational Sociology shall have gone far in this program it will become differentiated into a number of subsidiary studies, just as Chemistry and Physics and History are differentiated into a number of subdivisions. I am trying in this volume only to outline some basic principles from which our thinking about this

problem must start, and to show as well as I can at this stage, the spirit and methods by which scientific educational reconstruction must be brought about. But we cannot maintain the *status quo* while we wait a generation for the consummation of scientific studies. While the technical research worker is progressing with his detailed investigations, the practical educator can, and must, be making much headway in readjusting educational practice to the more obvious demands of present day life under the guidance of common sense supplemented by the findings of the laboratory as rapidly as these findings become available. This volume is intended both to initiate the future research worker into a viewpoint and a technique that can lead on toward contributions to a scientifically organized education and to place the practical educator in a position to appreciate and utilize the results of such research as well as to govern his empirical programs by such principles as Educational Sociology can afford while he awaits the slow but systematic conquests of science.

1. In the chapter immediately following this one I shall attempt to formulate a definition of education in terms of preparation for meeting the specific problems of life. This is not a new definition, and looks harmless on the surface, but its implications, when fully worked out, are quite revolutionary. In the next chapter—chapter III—I shall show that that definition commits us to treating the school studies as groups of *experiences* which anticipate, and prepare reactions for, the emergencies of out-of-school life. This view of the nature of a school curriculum affords a practical criterion for the selection or rejection of subject-matter and carries the implication (revolutionary as compared with present practice) that the school offerings must be as varied and comprehensive as the problems of life. This places education frankly on a utilitarian basis, and in chapter IV the question will be discussed What sort of education *utility*, when rightly defined, demands; and tests will be proposed for determining what material *is* really most useful.

2. When we accept the principle that education must prepare one with abilities to meet the actual problems of life, we are compelled to accept the obligation of finding out in detail what these problems are. This cannot be done by speculation, but must be done by going out

into society and making scientifically controlled surveys. In chapter V the implications of that fact will be discussed and there will be a general (non-technical) treatment of what constitutes scientific procedure in social survey. The discussion of scientific method as applied to this question will be dropped temporarily at the end of chapter V, but will be taken up again in Part II of the book. In Part II there will be a much more detailed and technical discussion of methods of research by which the implications of the first five chapters of Part I can be realized, a definite technique for survey will be outlined, and illustrative studies will be quoted. In the several appendixes further results of such studies will be given as illustrations of possibilities.

3. After dropping temporarily (at the end of chapter V) the discussion of a technique for research, this volume will take up, through chapters VI, VII, and VIII, certain other implications of the fact that education must be as broad as life and must give within that broad field specific preparation for the specific problems of life. In chapter VI will be shown what sort of demands the claims of democracy make upon this new education; chapter VII will show the need for fitting men to their work and for fitting educational programs to the men, and will describe methods for guiding pupils in the choice of a vocation and in the choice of optimum studies. Since many of the new and strange obligations of formal education that prove to be implicated in our definition cannot be met with the present organization, chapter VIII will propose a redistribution as to age levels that will make the program feasible.

4. Such a gigantic obligation as the new education will impose upon us cannot be met by the school acting alone. Hence the possible contribution of other educational agencies, and the most economical alignment of the school with these agencies, will be briefly discussed through chapters IX to XII.

5. The realization of our educational program is conditioned by certain sociological phenomena of which the educator must take account. What some of these phenomena are, and how the educator may utilize them for his purposes, will be discussed through chapters XIII to XV under the captions: *Socialization*, *Social Control*, and *Progress and the Relation of Education to it*.

6. A concluding chapter to Part I will treat, in a very cursory way but with many references for further reading, the *organization* of the new curriculum.

CHAPTER II

THE FUNCTION OF EDUCATION IN SOCIETY

"Since every man who lives is born to die,
And none can boast sincere felicity,
With equal mind what happens let us bear,
Nor joy nor grieve for things beyond our care;
The world's an inn, and death the journey's end."

—DRYDEN.

I

It is conceivable that we might have a society made up of individuals that live on perpetually. In that case, if the environment remained stationary, adjustment might at length become practically perfect and individuals might live on continually without ever an instant of friction, or struggle, or pain. For, after awhile, men would learn to satisfy their needs with ideal efficiency, and even the activity required for that purpose would ultimately become so much a part of their nature that its exercise would afford pleasure and its restraint cause pain. Within the range of men's daily activities there would be finally nothing new to learn and they would, of course, never trouble themselves to learn anything outside of the range of these activities, for our inquiries always originate in our needs. Thus man would be able to ascend into the blessed realm of Nirvana, as far as placidity of consciousness is concerned.

Disadvantages of Perpetual Life.—But there would be some fatal disadvantages to such perpetual individual life with its attendant static adjustment. Spiritually there would be an almost complete lack of zest, of stimulus, of gusto in living. Biologically the organism would be under a fatal handicap, for the hypothesis of an unchanging environment would be impossible of fulfillment in any such world as the one we know. Our world does change. In the first

place the physical world changes. Climatic conditions alter through geological ages, so that a region once cold becomes hot or the reverse. The surface of the earth changes in contour; lowlands become mountains by upheaval and the tops of mountains are sometimes submerged. The food supply changes in any region on account of variation of contour and climate; the destruction of certain species of plants or of animals; the importation of new seeds carried by winds, birds, or currents of water; or even because of the evolution of forms already present. The animate enemies of any organism change, so that means of protection developed against one set of enemies would no longer serve as defense against the newer ones. And finally the mere momentum of growth within the organism itself tends inevitably to throw it out of adjustment with its environment. Hence any species that depended upon the static adjustment of its individuals could not possibly fit into this world as we know it.¹

Rejuvenation.—To meet these disadvantages of perpetual life, nature has provided for death and rejuvenation. At the close of a longer or shorter cycle of life the mature individuals of the species die off and their places are taken by their young progeny. To this scheme of rejuvenation there are many biologically significant advantages:

1. The young are smaller, or better protected in form, so that they can more easily combat their enemies. The eggs of insects can evade their enemies by reason of their minuteness. The seed is encased in such a way as to be largely immune from cold. The young have means of dispersal which the mature have not; seeds can be wafted by winds, or transported by water currents, when the adult is grounded firmly to the earth.

2. With rejuvenation there is a chance for a new deal in the selection of the fittest. The young always vary somewhat from their parents and, out of the superabundance of progeny,

¹ For an excellent discussion of this whole matter of rejuvenation see Henderson, *Principles of Education*, chapter II.

nature can select those with characteristics tending in such direction as to fit them better for coping with the current environment. For example, if the dominant colors in the environment change, selection from among the young can evolve a protective coloration suited to the necessities of escape by hiding; or defenses can be developed against new enemies; or different mental, social, or dietary characteristics may be evolved.

3. Rejuvenation produces a plastic creature with increased possibilities for taking on training. Among the lower animals this assumes the form of the development of a slightly different set of instincts from those of the parents—instincts more consonant with the newer conditions. Among men it involves the possibility of acquiring new habits, attitudes, emotional complexes. The proverb has often been heard, "It is hard to teach an old dog new tricks." The mature individual has become so habituated to certain viewpoints that it is, in most cases, next to impossible to get him to change these viewpoints fundamentally.¹ On the other hand, the youth is far more receptive to new ideas. His attitudes, biases, habits, ideals, are yet in the making, and they can be forged into such new forms as a new day demands. Thus rejuvenation brings plasticity and plasticity brings the possibility of learning.²

Disadvantages of Rejuvenation.—But, if there are advantages to rejuvenation, there are also disadvantages. The new individual starts out, in the higher species, very immature. All that adults have acquired he lacks. There is thus a vast gap between the newcomer and the old and, if the achievements won up to that time are to be preserved, the young must be got across this gap and made at least as good as their parents—indeed if there is to be any progress they must be made as good early enough in life that they still have time left for making pioneer contributions for the enrichment of

¹ See James, *Principles of Psychology*, Vol. I, page 121-2.

² Look up Fiske, *Theory of Infancy* and consider its application to this matter.

their race. In other words, the newcomer must be *assimilated* to the group—initiated into the secrets, attitudes, and skills of his elders.

Assimilation of the Lower Animal Young.—In the case of the lower animals it is not difficult to get the young across this gap between immaturity and maturity. The process practically takes care of itself. Given a little protection, some opportunities for imitation of their forbears, and some individual experience, unassisted instinct suffices.

The Problem Greater with Man.—But with man the case is very different. Throughout the past ages he has accumulated vast stores of experiences, and has gradually crystallized these into his civilization. They are organized into institutions, books, oral traditions, customs and beliefs that are the precipitate from contacts with nature and with men. These cannot be passed down by simple physical heredity, as the lower animals bequeath to posterity their meager heritage, but must be transmitted by a “social heredity” instead;¹ that is, must be carried by social agencies rather than by the germ plasm. If any single generation failed, for some cause, to pass down to the next this accumulated experience of the past—or rather if any generation failed to initiate the rising generation into the body of inherited lore before passing off the scene—civilization would be lost.²

The assimilation of the newcomer to the group is therefore a matter of supreme importance to the highest animal species—man—and engages a large portion of his time and energy. Moreover it grows increasingly important and difficult as civilization advances and the gap between the initiated adult and the uninitiated child becomes necessarily wider.

Consider what would be lost in each of the following fields if the accumulations from the past were suddenly wiped out: medicine, government, electrical engineering, religion.

¹ See Bagley, *Educative Process*, pages 8 to 21.

² See Dewey, *Democracy and Education*, pages 1 to 4.

The Initiation of the Human Young into the Lore of Adulthood.—Some of this wealth of adult experience can, as in the case of the lower animals, be communicated to the young by affording them opportunities for imitation and by a little parental guidance. In the very earliest stages of human society that was probably sufficient. But such meager measures were not adequate to even a slightly developed civilization. As the fund of accumulated experience gathered, it became necessary that man resort to more and more conscious and elaborate machinery for imparting it to the oncoming members of the race.

The first step toward a formal effort to help the youth over the gap was the initiation ceremonies of primitive tribes.¹ As these initiations grew in frequency and in complexity it gradually became necessary to set aside certain persons as "experts" to "engineer" them. These specialized functionaries became the priesthood. This priestly class had to be perpetuated by new recruits, and thus there was required esoteric instruction to acquaint these recruits with the secrets and the magic rites of the tribe. For taking care of these "interns" (and also "externs") elaborate machinery became progressively necessary, and thus evolved school buildings, school administrative machinery, and the teaching profession. This machinery for passing down "religious" lore was early supplemented industrially by crude apprenticeship, as when the boy made play arrows by the side of his father who was making real ones, or when he assisted his father in the chase. Also on the civic and cultural sides there were various provisions for propagating the approved ideas and thus winning the young, or the minority of adults, to them, as, for example, opportunity to listen at the council, or the telling of stories of real or fancied incidents of heroism. In addition there was always, of course, supervision over the morals,

¹ For a very brief account of these ceremonies see Monroe, *Text Book in the History of Education*, chapter 1; or, for a more extended account, see Webster, *Primitive Secret Societies*.

and other phases of conduct, in the home and by the watchful elders of the community.

These Efforts Education.—All of these impartations of accumulated "experience" to outsiders—that is, to the young and to minorities within the group—constitute, when taken together and when added to the accumulations from one's own individual experience, EDUCATION. Education is thus, plainly, necessitated by the need of assimilating individuals to the group and to group standards. It is for man the only effective means of conserving, and transmitting to the future, civilization and its benefits.

Education of Minorities.—We have been speaking chiefly about the case of the young; but the same thing is true of all outside persons, that is, unassimilated persons. These, too, must be won over to the standards of the dominant element in the group. Note the case of the education of immigrants in America. They come here in such droves as to threaten to engulf our civilization. Before the war they were coming at the rate of over a million a year, three-fourths hailing from sections of Europe and Asia that have standards of living extremely diverse from our own. At present we are restricting the numbers, but the aggregate of those arriving, and of those already here but not yet possessed of our spirit, is still great. We must assimilate these strangers or they will assimilate us. So we kindle the fires beneath our "melting pot"—we set about an ambitious program of Americanization. Our first step is often to teach them the English language. But it is not literacy in the dominant tongue of this country that we are in fact fundamentally concerned about. That is merely a means. We want them to be able to read our language merely that we may more easily communicate to them our ideals, standards, and viewpoints. They are Americanized when they have come to think about, and act on, political, social, economic, sanitary, and other matters in the approved American way. Their Americanism, in other words, consists not in literacy, which is merely a means, but

in absorption of the viewpoint and the practices of the group whose dominance induces it to regard itself as higher—the “mature” while the immigrant “outsiders” are the “immature.”

In exactly the same thing does the education of all provincial groups or individuals consist. When we undertake to educate a country boy to city life, or a city boy to cowboy life, the education consists in getting these “outsiders” pulled around into unison with the group that is, under the circumstances, dominant. And exactly the same thing is involved in educating the minority to the 18th Amendment, or any individual or group to accepted standards of morality, citizenship, or vocation. In each case the educational effort is an effort to assimilate the “immature” to the “higher” group.

Is this true? Search for examples to disprove it.

II

Group Solidarity as an Objective of Education.—Now there are two complementary phases to this assimilation of individuals to the group. The first is achievement of a high degree of solidarity within the group. The members must become like-minded, spiritually unified, homogeneous in outlook. That was implied in our foregoing discussion about immigrants and other outside groups. The more highly developed societies can, and do, permit a considerable diversity of opinion among their individual members, but in all vital respects even they demand unanimity, especially in critical times, as in periods of war. We have become so accustomed to our fundamental agreements that we do not ordinarily realize how much more we have in common than in disagreement. But a little reflection and observation will show us where those persons are who do not agree with the vast majority relative to the necessity of respecting other people’s property, or their lives, or their rights on the road or in the home. (*Where?*) By a long process of maturation the “mature”—the ones already on the ground—have achieved

solidarity of sentiment regarding this wide range of fundamental matters and the young, or other outsiders, are either clubbed or educated into harmony with it.

True? Or is it true, on the contrary, that the first aim of education is to develop individuality in thinking and acting? Argue this point with reference to the type of moral, civic, social, æsthetic and theological education we give, especially to little children.

Biological Reasons for Solidarity.—There are compelling biological reasons why the group must be concerned to achieve solidarity and to maintain it. Throughout all history the intense struggle for existence made necessary the most complete co-operation. That group which was strongest in the virtue of co-operation survived, and those groups that were weak in it were eliminated. Especially while men were socially undeveloped effective co-operation demanded complete agreement and undeviating conformity. The consequence was that, among primitive tribes, the solidarity was amazingly great. The groups were much smaller than our contemporary ones, but they were proportionately more compact. The savage could indulge no opinions, likes, or habits of his own choosing. He had to get these readymade from his group. Even to details of painting his face, combing his hair, washing his hands, or eating his food his conduct was minutely prescribed by custom or by the edicts of the "wise men." From this primitive type of solidarity, resting upon instinctive bases, society has progressed toward a solidarity based more largely on voluntary co-operation. Spencer's famous formula for evolution in general holds true in this matter also: "Evolution is from indefinite, incoherent homogeneity to definite, coherent heterogeneity through progressive differentiation of structure and function." But, although co-operation has come to rest more largely on inner consent than on outer compulsion, as civilization has advanced, the solidarity within groups of men is no less now than formerly, and greater and more effective by far than that among any other animals.

Reasons for Greater Solidarity among Men.—For this greater solidarity among men there are several reasons:

1. Men are feebler individually than the lower animals, and therefore more dependent upon each other. In consequence there necessarily developed in them a stronger instinctive tendency toward co-operation and gregariousness.

2. Man is the only creature that can imitate, at least to any great extent. Where the lower animals act alongside each other, the state of mind of one is not communicated to the others, unless in a very crude manner and to small extent; but when men act together they *share* each other's ideas and emotional experiences. The one influences the other at every turn, and this process of sympathy, imitation, and suggestion tends continually to bring them into a common viewpoint.¹

3. Men deliberately co-operate, compare experiences, argue out their differences. Thus they develop a larger area of common ground. It is in this way that such groups as a church, a labor union, a community, or even a nation achieve at length a high degree of like-mindedness—the amount depending largely upon the ease of communication among the members. Into these generally sanctioned attitudes the young, or other outsiders, are effectively trained. It is illuminating to note how certain countries (as Germany), and many churches, have used subtle and persistent “propaganda” to mold adherents into the attitudes “approved” by the dominant element.

Illustrate from propagandist campaigns in war times.

Solidarity as an End of Education.—Modern society, with its adhesion to a policy of individual freedom for its members and with its weakening of docile submission to the group, must depend, as implied above, upon education to effect its necessary solidarity. Suggestion, carefully nurtured preju-

¹ See Dewey, *Democracy and Education*, chapter II.

dices, relevant ideas and theories, social approvals and disapprovals, and every other sort of available force, are employed by manifold social agencies to coax, and twist, and batter the individual into conformity with the social mind. One phase, then, of the social meaning of education is the production of conformity, like-mindedness, solidarity, loyalty, consensus—all of which have been, and still are, essential to the preservation of the group and its civilization.

III

Individual Efficiency as an Aim.—But modern civilization cannot rest its stability only on the loyalties mentioned above—on the sense of mass strength. It must rest its power also on the efficiency of the individuals that make up the group. However self-denying and obedient the members of a nation may be, that nation is weak if its citizens are not individually strong. Kipling's "Law of the Jungle" states a universal sociological truth:

"Now this is the law of the jungle,
And this rule runneth forward and back,
That the strength of the pack is the wolf,
And the strength of the wolf is the pack."

So the second phase of the social meaning of education is the realization of efficiency in the individual. Daily, hourly, individuals are confronted with problems they must solve—with difficulties with which they must cope—with situations to which they must adjust themselves. These problems may be of quite varied character—industrial, political, cultural, hygienic, moral. And it is a social, as well as a personal, necessity that the individuals be prepared to meet these effectively. To prepare them to do so is the second great function of education. How, and under what conditions, education can perform this function, we can perhaps best see by tracing it up from its simplest, toward its more complex, forms.

Learning among the Lower Animals.—In order to study the laws of learning among animals of low type of development,

Professor Yerkes¹ allowed three crayfish to become accustomed to escape from a box by either of two openings. He then closed one of these openings and studied the creatures' behavior. At first each went equally often to the closed and the open doorway. But every time that it went to the closed entrance it was baffled in its undertaking and experienced, in consequence, discomfort; each time, on the other hand, that it went to the open entrance its effort was rewarded with success and it experienced pleasure. Soon it came to make few of the fruitless efforts and many of the successful ones until, after some sixty trials, it went nearly always directly to the open way and wasted no further energy on the other. Undeveloped as it was in structure, it evidently preserved the results of its experiences and modified its future responses in consequence.

It is in a similar manner that the cat learns to open a trap-door in a puzzle-box. He scratches about promiscuously until some chance stroke turns the button which releases the door. This successful experience leads to such narrowing down of the range of his activities as enables him to repeat the same movement in a shorter time than that required on the first occasion. Thus, by keeping his successful experiences as a background, he successively shortens the period of trial and error until at length he has eliminated all movements except those directly connected with the realization of his end. As in the case of the crayfish above, the results of his experiences persist and guide him in his future dealings with the situation. In the same way the wily deer comes to distinguish between friend and foe, and the dog learns in what circumstances he may snatch up meat and under what conditions he may not. Each acts differently in the next situation that he meets in consequence of his experience in the former. On the other hand, the very low forms of animal life—such as the moth, which flies repeatedly back into the flame until burned to death—do not profit by their

¹ *Harvard Psychological Studies*, Vol. I, pp. 565-77.

past experience so as to respond differently to future situations, and for that very reason are uneducable. In every case, then, as far at least as lower animals are concerned, the learning seems to consist in acquiring experiences which serve to guide and make more effective the responses of the creature in meeting analogous future situations.

Learning through Play.—Nor is such more effective mastery of new situations, in consequence of experience with old ones, by any means restricted to the lower animals. Professor Gross and others have made plain to us how important is the play of childhood as a schooling for the more responsible work of adulthood, though we have, of course, come to see that this interpretation of play as preparation for the work of adulthood is only a partial one. When the boy hitches his playmate to the "express" wagon, and drives him about with wrapping-yarn lines, the kicking, balking, and shying of the mock-horse give the lad forewarning of equine caprices without the dangers involved in the handling of a real horse. When, in turn, the playmate is replaced by a dog or goat, the goat by a Shetland pony, and the pony by a trusted horse to which the child holds the lines in the least obstructed part of the road, the problems which the child is meeting are progressively a more accurate reflection, though always in simplified form, of the more difficult ones of earnest life, and the adjustments that the youth makes to these rudimentary situations prepare him for dealing more effectively with the later more complex ones.

Again, the child is confronted, in building a playhouse, with the necessity of moving a stone above his unaided strength. He casts about for means to solve his problem and resorts to some form of improvised lever or inclined plane, and thus acquires a method of adjustment that will be of service to the man into which he is growing. Thus constantly, through his play, he is meeting in miniature in every realm—that of plant and animal life, that of physics and chemistry, that of the practical psychology involved in getting on with

his fellows, and a score of others—the problems which will weigh upon him later, and is preparing adjustments for them. His learning through his play consists, like that of the lower animals studied above, in getting experiences which make more effective his future adjustments.

Learning through Apprenticeship.—When we advance to a type of training that is somewhat more formal—that of a trade apprenticeship—the same principle still holds. When the embryo cabinetmaker begins his training he is set first on relatively inexpensive material. Out of a cheap board he undertakes to make a joint of the simplest kind. If he spoils two or three in the making, little is lost. But through these relatively safe efforts he learns to avoid mistakes and to secure correct adjustments. Then, with adjustments matured against at least the simpler emergencies, he undertakes a somewhat more critical task and acquires, through his successes and his failures with it, still more elaborate and more perfect adjustments. Finally he emerges from his apprenticeship into the ranks of the journeyman with a full set of adjustments for the various problems that may be expected to confront a cabinetmaker, and hence prepared to deal with the most delicate and important situations without untried, and therefore fumbling, approaches. His education for the trade has consisted in living through, more or less in miniature, the problems of his future vocation and acquiring, in this sheltered state, effective responses for future situations.

Learning through Demonstration-Lecture.—In the four preceding paragraphs we have been dealing with learning through motor responses. Let us now advance to a situation that involves a verbal element—the demonstration-lecture—such as would be illustrated when a teacher of physics demonstrates by means of apparatus as he describes. Here we would seem at last to find the learner passive instead of active, and to catch him learning merely through impression. But second thought reveals the opposite—that here, too, he is active. For, as he watches the demonstrator, he reconstructs

in his own person the adjustments of his tutor. It has been conclusively shown, in the psychological laboratory, that one who watches the behavior of another reproduces, in suppressed form, the activities of this other.¹ So as the demonstrator works and talks, the learner thinks and acts parallel to the leader, as if he himself were handling the apparatus. Through his own mental reconstruction of the situation, and the motor strain which accompanies it, he is in fact himself living through the adjustments to the situation, and getting an experience comparable to that of the motor cases of our paragraphs above. His learning is really, at basis, in spite of appearances, still of the same active type as the foregoing.

Learning through Words.—We come now to that extreme case where the basis of one's learning is purely verbal. Here it would appear, at least on the surface, that the learner is purely passive and receptive, and that he is learning through a means the very opposite of that active and participative experience that characterized the cases above. But closer consideration again shows the matter to be otherwise. Words that leave the hearer passive are but jingles which carry no meaning. If words are to arouse ideas, it can be only when they set the hearer personally to living through the experience which the ideas epitomize.

That this is true, a few illustrations will show. When someone uses the word *alert*, you are likely to respond by assuming, to some degree, the attitude of alertness—shoulders thrown slightly further back, eyebrows raised, a slight quick lateral turn, and a retraction of the head. Similarly such words as *beauty*, *nobility*, *sorrow*, throw you into some sort of appropriate but suppressed motor response. The same thing is true if the stimulus is not a single word but a series of words constituting a sentence or a group of sentences. When, for example, you are given directions as to how to find your way

¹ See Judd, *Psychology*, chapter 7; or Stratton, *Experimental Psychology and Culture*, chapter II.

to a certain place, and you attend closely to these directions, you actually make suppressed movements of turning to right or left, straining up the hill, etc. In other words, as you follow the description you live, in miniature, through the experience to which it points you.

Similarly, in following a lecture you reconstruct as hearer the experiences of the speaker. He does not transmit his thoughts to you borne on "winged words." There is no possible means by which any person can impart a thought to you, or to anyone else; all the speaker can do is, through the stimulus of words, to arouse in you attitudes and experiences like his own, but these must for you be reconstructed out of your own life. Speaker and hearer are merely thinking parallel to each other, their thoughts holding hands, as it were, through the words. And the same thing happens when you read a book. You do not absorb the thoughts as abstract thoughts; rather you reconstruct and live through again the experiences there held in storage.

Summary.—So he who prepares himself for making a table through reading a chapter from a book on furniture-building is making an approach not unlike that which the apprentice makes. But, while the apprentice lives through in reality the preparatory steps, the reader goes through them only in imagination. As he reads along he lives in miniature through the experience of constructing the table, making, in very suppressed form, incipient movements of cutting his pieces, fitting them together, and screwing them fast. And through these miniature experiences he prepares adjustments in advance for his problems as does the apprentice who fully acts out the responses through which he learns. Likewise in the reading of books of travel one lives through some such experiences as he would have if really on the scene, and if later he actually goes to the places described, he carries with him such prepared adjustments for emergencies as are ordinarily possessed by one who returns to a place a second time. So in the reading of history, of

geography, or of rhetoric one is more or less fully and vividly reconstructing and living through the experiences which the writer has stored in the pages of his book. It is this fact that students of pedagogy have in mind when they insist that the child, whether dealing with books or with first-hand data, learns only through his self-activity. Learning through language is also, then, essentially the same process as that of the more directly motor types studied above.

Generalization.—Thus in all these cases education consists of the maturation of adjustments in terms of which one can meet future situations more effectively.

Definition of Education.—Indeed not only can all the levels of education discussed under our second phase—that having to do with efficiency of the individual—be covered by a single formula, but also that under the first phase—social solidarity—can be comprehended under the same formula. In all cases the individual gets experiences and preserves the results of such experiences so as to act differently in the future. In the first case his educative experiences consist in his having been got to take certain viewpoints, with more or less emotionalization of the attitudes involved, which attitudes have been thereby rendered more likely to recur and to function in the future;¹ in the second case his experiences consist in living through, either an idea or in fact, typical situations destined to recur in the future, and thus learning how to adjust himself to them. We may, therefore, adopt Professor Bagley's definition of education as: "*the process by means of which the individual acquires experiences that will function in rendering more efficient his future action.*"² In the first of our phases of education, however, the experiences yield chiefly sentiments, biases, attitudes, ideals, which effectively consolidate one with his group; while, in the second phase, they yield more largely skills, foresights, methods of procedure, which

¹ See Peters, *Organisation and Selection of Materials for a Course in 'The Control of Conduct,'* pages 52-59.

² Bagley, *Educative Process*, page 22. The whole of this first chapter in Bagley's book is strongly recommended to the reader.

forewarn one as to how to act when emergencies, analogous to the educative ones, recur in the future.

Recall *Oliver Twist's* training for thievery. Can it be interpreted in the above terms? Similarly interpret: training for public speaking; for morality; for farming.

Value of Learning through Language. —The lower animals have no way of giving to their descendants the benefit of their experiences as a guide, nor even to their contemporary kind can they, except to a minimum extent, communicate the results of their training and thus save them in advance from blundering. Each of the lower animals, high enough in the scale of development to be at all educable, can guide himself only by such experiences as he himself has had, together, of course, with instinct. In consequence a second generation cannot start where the last left off, but must begin approximately where each preceding one began and retrace essentially the same course.

But man is educable in a much broader way. Not only is he able to profit by his own first-hand experience, as can the lower animals, but he has the unique power in addition of drawing upon the experience of his ancestors and of his contemporaries. This is made possible by his faculty of speech. His ancestors bottled up their experiences, so to speak, and put them in cold storage encased in oral and written language. His contemporaries do likewise. Upon this storehouse of experience, supplied by his progenitors and his fellows, he can draw for guidance much as he would draw upon that of himself preserved in his own memory. This store of preserved and organized experiences grows larger from generation to generation, so that each succeeding one enters upon life with more perfect guidance at its command than any preceding one has had, and hence is able to rise higher. For man, education consists not only in gaining first-hand experience for himself but also in appropriating this rich social heritage as a means of making more effective his own conduct.

This device of crystallizing experience into language involves, too, the possibility of great condensation with its attendant economy. When one describes his journey he does not put into the description every incident—every turn, every heartbeat. He leaves out all of the non-essential features, and preserves for the guidance of his followers only the quintessence. But he does put in the fruitful turns and warns against the false ones. In consequence of the omission of all the accidents and the preservation of only the essentials, his follower can retrace the pilot's experience, and profit by its successes and its errors, in but a fraction of the time required of the guide. Thus in a few hours one can accompany the traveler through a continent, or follow the scientist through a year-long experiment. In history one can retrace in hours what it took the nation decades to go through, and, in the formulæ of mathematics or of science, one can get in moments the net results of years of fumbling for light on the part of many masters of these arts. It is, indeed, in this possibility of condensing experience when crystallizing it into language that the advantage of this means of education consists. Were it not possible to condense when reducing to language, there would be required as much time for retracing as for originally passing through the experience, and no gain would accrue to the would-be disciple for the exchange.

Dangers of Learning through Language.—But there are also great dangers involved in education through these condensed experiences. Material thus learned functions educationally only on condition that the learner be actually initiated by the words *into the experiences* that they preserve. He must be got to reconstruct, think through, live again, these experiences. If he does not do so, but merely memorizes the words, the material is not educative in the intended way. Yet it is a matter of common knowledge that much schooling is conducted on almost a purely verbal level, the pupils not being thrown into an active, thinking, re-creative attitude at all. (*Illustrate.*)

A second major danger is that children may be required to study material that is not a forecast of their future problems. The educator's interest may be, not in training people for efficiency in their actual adjustments, but in communicating to them certain dear subject-matter for its own sake. The learning of books is so easily made an end in itself that vast numbers of teachers succumb to the temptation. That this danger of making the subject-matter rather than the pupil the center of interest is not an imaginary one, but a very real one, is also a matter of common knowledge. (*Illustrate.*)

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Why would Bacon's ambition to take all knowledge for his province seem more absurd now than it did in his own day?
2. Make a list of actions and beliefs from which we (the pace-setters in the United States) would try to dissuade individuals. Also a list of actions or evaluations to which we would try to win them. Likewise, a third list of matters in respect to which we would not be at all disturbed to grant complete freedom for personal conviction. From a study of these three lists, test out the assertion of the text that one function of education is the production of conformity.
3. Make a study of the sanitary, cultural, and economic ideals and standards of immigrants to America from southern Europe, as exemplified by their living conditions, and, on the basis of these findings, state the main elements in the problem of the education of immigrants (Americanization).
4. Much is being said in current educational discussion about the value of learning through doing. What are typical forms which teaching of this type takes? In the light of our discussion in this chapter, what are its advantages and disadvantages as compared with the traditional school methods? Make concrete proposals of procedures by which the merits of both this method and the more bookish traditional method could be combined.
5. Recall your own experience as a pupil in history, geography, arithmetic, civics, and physics. Do you feel that you were appropriating stored experiences, and making them your own, or that you were only mastering words? Why? How do you purpose to change the methods you use as teacher so that your pupils may be getting active experiences instead of mere words?

6. Look through the lists of aims of education discussed in such books as Bagley's *Educative Process*, Henderson's *Principles of Education*, and other texts on the principles of education, and decide to what extent all these aims can be comprehended under the twofold aim proposed in this chapter—namely, group solidarity and individual efficiency.

REFERENCES FOR FURTHER READING

1. BAGLEY, W. C., *The Educative Process*, chapter 1.
2. DEWEY, JOHN, *Democracy and Education*, chapter I.
3. HAYES, E. C., *Introduction to the Study of Sociology*, chapter 35.
4. HENDERSON, E. N., *Principles of Education*, chapter II.
5. LAUK AND JENKS, *The Immigration Problem*, chapter XV. (The problem of assimilating immigrants.)
6. *Proceedings of the American Sociological Society for 1922*, the papers by Professor Bernard and Professor Ellwood.

CHAPTER III

THE NATURE AND FUNCTION OF THE SCHOOL

The School Versus other Educational Agencies.—Since education consists, as shown in the previous chapter, in acquiring experience in terms of which one can more effectively meet his problems, it is plain that education is not confined to the school. It is being got wherever one is having experiences that will enable him to handle better any situation in the future. Thus education is as broad as life, and the old distinction between learning by experience and learning in school is a false one.¹ All education must be by experience. Any schooling that does not consist in giving vital experiences to the child is really not functioning as educative.

But school differs from out-of-school life in its systematic character. Experiences do not come to the pupil in school as haphazard as they do out of school. They are selected, graded, and organized. The teacher so manipulates the environment of the pupil as to bring it about that he shall get the experiences which are most useful in preparing him for future life, and also that he shall get these in the order in which he can best profit by them. In the ideal school those experiences will be given a place which are required to prepare the pupil for any important problem of his later life. There will be no gaps left, as there are when one prepares for life through unselected out-of-school experiences. Each experience, too, will be repeated often enough, and only often enough, to bring the desiderated adjustment to the required degree of perfection. Again, there will be no such blind duplication as the repetitions of out-of-school life involve. Moreover the experiences provided in school will be shaken loose

¹ See Bagley, *Educative Process*, pages 23-4.

from their accidents and given in their simple and essential form, while in out-of-school life the situations through which one learns are so complex, have their essential elements so covered up and obscured with accidental ones, and are so hopelessly unsystematic in their order of presentation, that learning through them is awkward and uncertain enough to be, in general, largely abortive.

Illustrate with the possibility of learning Physics merely from contact with phenomena in nature.

The School as a Time-Saver.—Thus the school is society's agency for systematically guiding the youth through those selected experiences that are regarded as essential preparation for future life. It is, in the social economy, essentially a time and labor saving device. It is a scheme for concentrating life—for bringing the youth as rapidly as possible into those modes of adjustment that have been found fruitful. In other words, its function is to shorten the period of trial and error, and thus carry the youth in a few years through those disciplining experiences which otherwise it would take him half a lifetime to meet. How the school does thus shorten the period of trial and error, bringing the pupil to an advanced stage of perfection more quickly than he could arrive unaided, the teaching of manual training well illustrates; here the teacher helps the youth to find quickly the best tools to use under given conditions, and the correct way to handle them, the right wood and the right stains to employ for particular purposes, and the most effective way of doing a thousand other things. All of these matters he would ultimately learn from unguided practice, but at the expense of great waste of time and material. The service of the teacher in the conventional subjects involves the same principle; for here, too, he assists the pupil to find more expeditiously the best books and the best way of using them, to pick out the most important data and the most effective methods of organizing these, and to arrive more quickly at the correct

method of pronouncing and phrasing words, of writing letters, and of translating sentences.

Illustrate with: literature, bookkeeping, English composition, cartooning, automobile repairing.

Proper Scope of School.—From such view of the nature and function of the school it becomes obvious how comprehensive is its potential scope. It should not be limited to preparation for a few vocations, but should look forward to the whole range of life activities. In every type of relationship where there is room for fumbling—where one may do either the wrong or the right thing—it is conceivable that we might develop a form of school training that would prepare in advance the right adjustment and forestall the wrong one. The ministry, teaching, carpentry, blacksmithing, bricklaying, farming, the duties of citizenship, the choice of a life mate, the rearing of children, the selection of clothing, the enjoyment of leisure, the small repairing about the home, and countless other activities, involve the possibility of wasting time and happiness through false moves; and hence such preparation as will shorten and make less costly this fumbling is within the proper scope of the school.¹

Would, or would not, the school's obligation extend to the following, and why? Ditch digging; courtship; etiquette; railroad engineering; beautifying the face; morality.

Nature of the Curriculum.—*A Miniature of Life.*—So the school is "society in miniature." In its simplest form its curriculum would be a condensed, though otherwise undoc-tored, reflection of society, and thus would be as completely undifferentiated as is the complex life that it images. And there are, indeed, some schools of the ultra-modern type in which the work is not segregated into separate studies but is made up of an unbroken whole of spontaneous yet

¹ The place of the school among the educational agencies will be discussed fully in a later chapter.

purposive activity—such schools, for instance, as that of Mrs. Johnson at Fairhope, Alabama, or of Professor Meriam at the University of Missouri—and in all of our better schools the work of the primary grades shows, in practice, little differentiation. But it has been found, on the whole, desirable to depart somewhat from this simple form of organization. It has been found advantageous to group together, for purposes of teaching and administration, certain types of exercises. The result is our several studies which together make up our curriculum.

Carpentry.—For example, it has been foreseen that the future carpenter will need to have matured skill in performing certain types of acts. He will need to saw boards without waste, fit in window sash, plan and construct stairways, and a hundred other particular acts. To fit him for dealing with these problems he is led, in school or in an apprenticeship, through similar activities in putting together pieces of lumber, perhaps even to the extent of building in the shop a miniature house. And, since all of these training activities have a common character, they are grouped together and administered as the shop course in carpentry. Similarly it is foreseen that he will need to make computations of a great, though clearly predictable, variety; to pass judgment upon certain intricate mechanical situations; and to enter into business dealings with others. So these different sets of problems, too, are segregated, for administrative purposes, into courses in mathematics, in the theory of carpentry, and in business principles respectively.

Physics.—Again, it is foreseen that pupils will, throughout their later lives, have occasion to repair electric bells, connect up motors, tighten violin strings, construct inclined planes that will give a desired mechanical advantage. More largely still, they will be confronted with many opportunities to understand interesting phenomena in nature—the breaking of a taut wire in cold weather, the operation of a telephone, the emission of sounds of varying pitches from pipes

of different lengths, the strange behavior of a magnet, the focusing of rays of light that pass through a lens. Great pleasure and profit will accrue to those who are able to understand, or to control, these phenomena when encountered from time to time. To give this ability pupils are made to face these problems, either in material situations created in the laboratory or in ideal form through class discussion, and to mature reactions for them. These experiences, segregated into certain hours in the school program, constitute the course in **PHYSICS**.

Civics.—Still again, it is foreseen that the youth, when grown up, will be confronted with certain problems in his relationships as a citizen. For these the school attempts to put him in readiness. He studies sample ballots; follows through, in narration or description, the behavior of typical men, or typical activities, involved in political life; and in general gets such familiarity with the "lay" of things as to make him in a sense an "old hand." And, since there are many of these inquiries to be made, and since they all have certain points in common, they are administratively grouped together and called **CIVICS**. When it is believed that the pupil can best prepare himself for these civic problems by seeing how men dealt with similar ones in the past, the group of inquiries taken together constitutes **HISTORY**.

Other Courses.—Obviously there are also other materials, preparing for one phase of life or another, segregated into chemistry, physiology, rhetoric, sociology, etc. Thus the whole curriculum, when properly drawn up (an hypothesis seldom fulfilled), consists of phases of future life in miniature, but differs from the life it reflects in that it segregates experiences according to some principle of affinity instead of dealing with them in their natural promiscuity.¹

Student illustrate further with: geography, English literature, French, algebra, and physics.

¹ See, for a full presentation of this viewpoint, *Rusdiger Principles of Education*, chapter X.

Adaptation of the Curriculum.—How, then, should the curriculum of a school be determined? Plainly by making a survey of the problems involved in effective living within that social order in which the pupil is expected to participate. These problems will be of very varied types—vocational, avocational, moral, civic, and others—but all of those which, it is foreseen, will occupy an important place in the child's life, and which are at the same time of such character that they could be prepared for thorough training, should be given a place in the curriculum, *and no others*. The curriculum should continually look outward and forward.¹

Adaptation to Locality.—It is clear, then, that the curriculum could not be uniform for all places. It could not be so and yet remain a miniature of life in each locality—unless all of these places were exact duplicates of each other, which, of course, is never the case. The ideal curriculum would be highly flexible and afford room for endless adaptation from one place to another, and even from one group of individuals to another within the same locality. Doubtless there would be found a core of relationships common to all communities, but there would certainly be found also a periphery of changing relationships; the boundaries of this varying section would not be quite the same for any two communities, while between certain pairs of communities it would be radically different.

Illustrate by naming some elements that would be the same, and some that would be different, in New York City as contrasted with a rural township in Ohio.

Adaptation to Stages of Development.—Neither can the curriculum properly remain the same through successive periods of time. Social problems change from time to time just as they do from place to place, and a curriculum that is a true image of one stage of society may be a very false image of a later stage.

¹ The reader will recognize that this is decidedly in conflict with the widely held pragmatic philosophy of education championed by Professor Dewey.

That this is true of all forms of vocational education is quite obvious. An engineering institute may not retain the same subject-matter and methods generation after generation. It must shift its methods to keep pace with the development of the engineering practice for which it is preparing. A commercial school could not afford to continue teaching old methods of business after those of the world outside had advanced. The training of the cabinetmaker, the printer, the milliner, the teacher, the lawyer must keep shifting as the practice in those trades and professions shifts. But that this same necessity obtains in every other phase of education as well as in vocational, while less universally recognized, is surely no less certain. The enjoyment of leisure; national and international relationships; the social, moral, and religious situation; and every other phase of life, are constantly changing and developing. Obviously no curriculum that is static can possibly be a true miniature of this dynamic society. The curriculum that remains true to its function must be eternally in the making—ever developing, ever adapting itself, sensitive to the fluctuations in the social *milieu* as the barometer is to fluctuations in the pressure of the atmosphere.

Conservatism of the Curriculum.—Unfortunately the sensitiveness of the school to social changes is not ordinarily delicate—is indeed very crude—and the life with which it is supposed to move *pari passu* often far outruns it.

Conservatism in Discipline.—As an extreme example of the disparity between the order of the school and that of the outside world, consider the type of discipline that once was prevalent, and that is still found, in many American schools. Our schools were not originated in democratic America but taken over, almost unchanged, from aristocratic and monarchical Europe. In the countries from which we borrowed, the type of school government was a fair counterpart of the social order outside the school. Though exaggerating somewhat the more primitive and reprehensible features of this social order, it gave, on the whole, the sort of social discipline

that the conditions demanded. Under the policy here referred to, the master reigned supreme over his little world—pedantically and autocratically as did the worst of old monarchs over their larger realms. Pupils were not taken into the master's confidence in the least, but rulings were made arbitrarily and just as arbitrarily enforced. On the instructional side, too, there was left little room for initiative. The methods were prescriptive and categorical. Pupils were not challenged to react as individuals, and to bring their own judgment to bear upon problems, but were expected to accept without question the fiats of text-book and teacher. The whole régime was adapted to crushing individuality, spontaneity, initiative, and self-reliance, and to cultivating instead a convenient docility and blind subservience to authority.

Now this system, so admirably adapted to a form of government and a social outlook committed to distrust of initiative on the part of the masses, has perversely persisted, in many schools of this country, into a social order where exactly the opposite ideals reign. Many an American master is still making his school a little absolute monarchy in the midst of an otherwise democratized nation. Surely such school is an anachronism. The kind of person demanded by our social order must be possessed of the spirit of independence, and of self-reliance, and must be capable of initiative and of free co-operation with his fellows. Surely we cannot fit the youth for this democratic life through a régime where none of these traits are given room to develop by practice, but where the quite antithetic traits are the ones exercised. This anomaly of an autocratic school in a democratic age can be explained in no other way than by the fact that the order within the school walls, once parallel to that outside, has made but little progress while that of the social order has developed apace, and that this difference in rapidity of forward movement has thrown the two quite out of parallelism.

How many examples can you recall of autocratically managed schools?

Persistence of Latin.—As a second illustration—one out of the content of the curriculum—of this same principle, take the persistence of Latin as a study in the secondary schools. Originally this was intended only as a preparation for the reading of books and the understanding of lectures in the Latin tongue, in a day when practically everything worth seeking was written or spoken in that language. It was manifestly then necessary that the candidate for university training first take a course in the reading, interpreting, and speaking of the Roman tongue, since, until he had done so, he was absolutely unable to follow the lectures of the professor or to take any part in the disputations. It has been now from one to three hundred years since professors followed the practice of lecturing in Latin, and longer still since books worthwhile have been accessible only in that tongue; yet we go on teaching the language as if we were still confronted with the original problem. Minor modifications have, it is true, been made at some places, but these changes have not been at all commensurate with the change in the problem that the school is called upon to meet. Many excuses are given for still teaching Latin; but, the writer is convinced, there is only one real reason why it is done, at least in the conventional way, and that is because three hundred years ago the ability to read this classic language was a *sine qua non* of further advancement in school, and because the momentum then got up has not yet spent itself.¹

¹ This is not to say that Latin does not have value as a school subject. Whether it does the things claimed for it, and whether it does them as largely as other materials might do with the same expenditure of time, is a matter to be settled only by quantitatively controlled experiment. What is meant is this: Where the teaching of Latin drifts on as if its objective were only to give the pupils a knowledge of the Latin grammar, and to enable them to read and to write the Latin language as high school pupils can read and write it, it is the momentum of the past that explains its presence and its procedures; where efforts are being made to reconstruct it so as to make it serve useful present purposes, it is the fact that we have it on our hands as a heritage from the past that induces us to try harder to make it serve the purposes than we would try on new subject-matter. Few people have ever given an equally favorable hearing to Anglo-Saxon and Japanese, trying to make them serve as educational materials for the masses of American high school students.

Other Vestiges of the Past.—Nor are the anachronisms of the curriculum by any means limited to the classical languages. They are involved as well in at least parts of many of our other studies. The tendency to teach history in such a way as to glorify kings and other leaders is doubtless a relic of the time when the political end to be sought through the teaching of history was very different from that which we should wish to attain to-day. The disposition, on the part of many people, to compel everyone to study trigonometry is, it seems, a survival of the days when there was, in our new country, much surveying to do and when nearly everybody educated at the academies found it advisable to make a study of the branch of mathematics basic to that work. So, too, much of our subject-matter and many of our methods in the teaching of English grammar, literature, geography, arithmetic, and physiology have their explanation in accidents of the past rather than in elements of the present situation.

Causes of Conservatism.—A General Social Tendency.—That the past should weigh down heavily upon the educational institutions of the present is really not surprising. Any student of social phenomena would expect it. For reasons well known to the sociologist, conservatism is an instinct deeply embedded in human nature. Not only the school but every other institution as well is disfigured by vestiges of a past persisting into a present into which they no longer fit harmoniously. At the waist on the back of a man's evening dress suit is a pair of buttons of no possible use to the wearer at present; they are there, it is said, as a survival of the day when they were needed as supports for the sword sheath. The buttons usually found on the sleeves of a coat are now useless, even from the standpoint of ornamentation, but when, years ago, men wore lace cuffs over their sleeves they served a good purpose as fasteners for these. The honeymoon trip is a survival of the long-since abandoned practice of wife stealing, and the doffing of the hat to ladies a relic of the once sensible practice of removing the helmet so as not

to frighten the timid passerby. In the procedure of our courts, in the terms by which we express ourselves in theology, and in the alignment of our political parties, there is much that would not be there if we were originating these at the present time. Deeply embedded indeed in human life is the spirit of conservatism.¹

Vested Interests.—But, in addition to the ordinary motives for conservatism, there are peculiar reasons why formal education should display a high degree of this inertia. Its policies are formulated ordinarily by the older men, who have, by reason of long habituation, become committed past redemption to the conventional viewpoint. Teachers, too—even younger ones—having been brought up under the established régime, have so long thought of education only in terms of this established order that it is next to impossible for most of them radically to shift their viewpoint. That incentive for bias, too, which often works so powerfully but so subtly to determine a man's viewpoint—the mercenary one—adds its deadening weight. Teachers have spent much time and considerable sums of money preparing to teach the conventional subjects, and there is involved something of the difficulty in readjustment that always is met where vested interests are threatened. Such teachers set up a vigorous defense of the régime upon which their living depends, without themselves being fully conscious of the questionable character of their motives. Moreover, even if the spirit were willing among teachers, the flesh would be weak. Many of them could not well readjust themselves even if they wished to do so. A fixed and static system permits, by reason of the well-worn precedents that fit into every cranny of it, the ordinary man to work in it with a measure of efficiency and with a sense of security; but a dynamic system, always in the making, demands a degree of resourcefulness and of self-reliance that soon carries the average person beyond his wit's end and plunges him into inextricable confusion. And

¹ Compare Thorndike, *Education*, pages 48-51.

so it is in this case. Tried methods, organized subject-matter, and good models are lacking, and even ideals must remain somewhat tentative and incompletely defined until they can have been worked over in extensive practice. The consequence can only be an amount of fumbling and of painful uncertainty from which all but the most courageous and ingenious must be expected to shrink away.

Test out the above statements by considering whether they explain any lack of progress in your own school district. If you were given an absolutely free hand to-morrow, how much would you change what you are now doing?

Obstacles from Without.—Not only are there obstacles to the desiderated readjustment from within, but there are equally serious ones from without. The laymen who, in a democracy, finally determine the policy of the schools were educated in the olden school and find it difficult to understand education when viewed from any other angle than that into which they have been initiated. They prize a training similar to that which they received and fail to appreciate any other; not seldom do they block, by legislative decree or by political pressure, readjustments proposed by professional educators. The people are accustomed, too, to supporting the conventional school, and no longer raise a question of the legitimacy of taxation for that purpose. But were this familiar education to be changed into a new, not fitting so unobtrusively into the regular routine of the taxpayer's thinking, the question of public support would be opened anew and many taxes would be paid under protest until the institution could again become, for the ordinary citizen, a matter-of-course social element.

What would happen in your district if you proposed dropping plane geometry as a required subject in high school, or third year Latin as an elective? Why?

Influence of Doctrine of Formal Discipline.—The natural consequence of lethargy from within and obstruction from

without has been that education has at all times, except temporarily at certain periods of reform, lagged behind life. As a rule the schools of one generation have imaged the social conditions and problems of the next preceding generation, or earlier. For many years this persistence of subject-matter no longer relating definitely to life was justified by the doctrine of formal discipline (or transfer of training). The position was taken that it makes little difference what one studies so long as one exercises the mind vigorously, and it was contended that no subject-matter could be found that would challenge the mind to more vigorous activity than some of the old, standard subjects. And, since the subject-matter of these had been well tested and the methods of presenting them well organized and standardized, it would be foolhardy to cast them aside in favor of the less-trying and less-standardized, modern studies. In other words, it was argued, the business of the school is not to give specific preparation for specific life problems, but merely to "whet up the wits" so that the trained individual would bring more intellectual momentum to any problem that he chose to attack.

This was, indeed, a very convenient doctrine. It made it possible to work out once for all a formal curriculum and develop methods for handling it without any necessity for disturbing it by reason of changes in the outside world. The doctrine was not only convenient but well-knit and plausible. It had, however, a single defect—namely, that it was not true, as psychologists learned when they brought to bear upon it a psychology that rested upon scientific experiment instead of on *a priori* reasoning. There is, of course, the possibility of a certain very important kind of transferable training, but the simple, old doctrine of whetting up the wits through hard study no competent student of education any longer holds.¹

¹ There is an extremely large, and very valuable, literature on this question of the transfer of training. For a short account the reader should look up one of the following: Bagley, *Educative Process*, chapters 13 and 14; Colvin, *The Learning Process*, chapters 14, 15 and 16; Mead, *Learning and Teaching*, chapter 8 or Henderson, *Principles of Educa-*

The Present Problem.—We are therefore face to face with the problem of readjusting the school to the social situation of the present day. This we must do by making the school in every respect a true miniature, not of the society of the past century, but of the society of to-day and to-morrow. We must demand of each element of subject-matter that seeks admission into the curriculum, and of each method proposed, its credentials; and we must retain or reject it on the basis of its showing as to just how it can function in preparing for life as it is lived to-day. Conversely we must ask what preparation each element of the life of to-day demands, and must find some effective means of giving such preparation. To carry through these inquiries is the central business of Educational Sociology.¹

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Note down a number of things you did fumblingly the first time you tried them, or mistakes you made at the cost of considerable embarrassment, inconvenience, or money, and consider whether or not these fumbblings could have been forestalled by the right sort of education. Also note down similar costly fumbblings in the lives of others with whom you are acquainted, asking yourself the same question about these. In the light of your conclusions react upon the writer's statement about the proper scope of the school.
2. Test out the principle that a school subject is a miniature of one aspect of present and future life by applying it to a number of elementary and high school subjects. If your application does not work out, consider whether the breakdown is due to a fault in the principle or in the subject.
3. Look up the history of the teaching of English (language and literature) and see how many of the practices of to-day are to be explained in terms of historical accidents.
4. Todd, in his book on *Theories of Social Progress*, says that the schools have never changed except as they have been compelled to do so by popular pressure. Is that true? In so far as it is true, explain it.

Non, chapter 10. For a longer account see Heck, *Formal Discipline* or Rugg, *Experimental Study of the Transfer of Training*. Also the chapters on this subject in Starch, *Educational Psychology*; Pyle, *The Psychology of Learning* and Thorndike, *Educational Psychology*.

¹The organization of the curriculum will be discussed in chapter XVI.

54 FOUNDATIONS OF EDUCATIONAL SOCIOLOGY

5. Get the names of five plumbers who have "picked up" their trade but who are now regarded as expert (in planning as well as in executing work). Learn by inquiry the time required by each to attain expertness and compare the time required by them with that needed to produce equal expertness with the help of a trade school. Explain.

SELECTED REFERENCES FOR FURTHER READING

DEWEY, JOHN, *Democracy and Education*, pages 22-26.

(Good, concise discussion of "The School as a Special Environment.")

BAGLEY, W. C., *The Educative Process*, chapter II.

(Discussion of the value of school versus out-of-school experience and short discussion of the nature of the curriculum.)

RUEDIGER, W. C., *Principles of Education*, chapter X.

(First half of chapter gives excellent discussion of the nature of the curriculum.)

COURSAULT, J. H., *The Principles of Education*, chapters VII-IX.

(Somewhat theoretical discussion of the curriculum as "patterns" for social processes.)

CHAPTER IV

UTILITY AS A CRITERION FOR CURRICULUM BUILDING

Utility as Criterion.—In following the preceding chapter the reader has doubtless been impressed with the utilitarian standard applied in shaping the curriculum. It was there held that any educational materials or methods should be required to show their credentials before being admitted to, or retained in, the course of study, and that these credentials should make plain how the materials or methods in question can improve the pupil's ability to deal with his problems—to get along in the world. It was contended that every element should have a definite and demonstrable bearing upon life as it is lived to-day and as it will be lived in the future, and that no sentimental prejudice, due to its history, should be permitted to influence the retention of any study, or any element of a study, after it has ceased to bear a vital relation to the problems of the day. In other words, we should, it was claimed, so modify our curriculum, from time to time and from place to place, as to retain only that which is useful, and that, too, for which we can make out a convincing *positive* case of utility.

To such naked utilitarianism many earnest schoolmen, as well as many laymen, take violent exception. But why should one hesitate to make usefulness the criterion in education? The opposite of the useful is the useless, and surely few persons, if any, would wish to urge that we occupy ourselves in school with the useless. We have no time anywhere to spend on that which is useless. Even the play of children is by no means useless, for through it the child attains health and happiness, a great deal of valuable information, and

many indispensable habits. If it were not so nature would never have developed in him the instinct to play. And, in this respect, men are as frugal as nature. It is hard to conceive of any community spending its money, and lavishing its care, upon a school system avowedly devoted to the impartation of the useless.

Meaning of Utility.—But in making utility the criterion in education, we must not take the term in the narrow sense in which it is sometimes understood. The useful is not merely the mercenary. There are many kinds of utility besides the material. It is true that this is one important phase of utility, but it covers only a small range of the total intention of that term. We must employ *utility* in the sense in which the economist uses it—in the sense of *want-satisfying power*. Anything is useful that satisfies, to any degree, any human desire. Such desire may be for money or other material goods, it is true, but any one who knows men knows that it may be also for companionship, for the satisfaction of curiosity, for the reputation and the substance of moral integrity, for beauty, for the nurture of the religious sense, and for a score of others. So the useful—since it is anything that will satisfy any one of this wide range of desires—covers the spiritual quite as well as it does the material. When we say that the modern school should admit only that which is useful, we mean merely that it should admit only that which has some point to make that is worth making, and that it should be able to show, with reasonable plausibility, that it can really make this point.

The very acrimonious controversy which has been going on recently between the advocates of reform in the interest of making education function more usefully and their opponents, rests chiefly upon an entire misapprehension, on the part of the latter, of what the former stand for. They overlook the broad connotation of the term *useful* and take it to cover only the narrowly practical, the shortsighted, the material, the unspiritual. Yet the advocates of utility as

the criterion in education have not failed to express themselves clearly and definitely in respect to the breadth of connotation that they attached to the term. That early critic of education, whose name probably comes first to everyone's mind when propagandists for the practical are mentioned—Herbert Spencer—says on this point:

“How to live?—that is the essential question for us. Not how to live in the mere material sense only, but in the widest sense. The general problem which comprehends every special problem is—the right ruling of conduct in all directions under all circumstances. In what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring up a family; in what way to behave as citizens; in what way to utilize all those sources of happiness which nature supplies—how to use all our faculties to the greatest advantage of ourselves and others—how to live completely? And this being the great thing needful for us to learn, is, by consequence, the great thing which education has to teach. To prepare us for complete living is the function which education has to discharge; and the only rational mode of judging of any educational course, is to judge in what degree it discharges such function.”

And our contemporary iconoclast, Abraham Flexner, who has aroused recently a perfect furor of protest from the many who take him as the prototype of those who would impress upon all forms of education the dollar mark as the sole certifying stamp, says, with a clearness that should embarrass those few of his critics who have actually taken the trouble to read his twenty-four page paper:¹

“I need not stop at this juncture to show that ‘serving a purpose,’ ‘useful,’ ‘genuine,’ ‘realistic,’ and other descriptive terms are not synonymous with ‘utilitarian,’ ‘materialistic,’ ‘commercial,’ etc., for intellectual and spiritual purposes are genuine and valid, precisely as are physical, physiological, and industrial purposes.”

¹ *A Modern School.*

Utilitarianism Versus Humanism.—The two supposedly antithetic schools are in fact seeking, at least up to a certain point, the same ends—the joys of pure living and high thinking, culture, spiritual efficiency, and social and industrial effectiveness—all the things which go to make up complete living. It is only in respect to the means by which that end is to be attained that they differ.

The member of the old school—often, though frequently inappropriately, called the humanist or the classicist—is content to use rather uncritically the subject-matter that has come down from the past. He believes that time has doubtless weeded out the valueless and left only the best. He is not troubled about his inability to show that any matter is useful in any obvious sense, since the moment it loses its claim to this overt type of usefulness it acquires thereby a claim to a much higher, but hidden and intangible, value—the cultural.

But the reformer in the direction of utility is not so easily satisfied. He shares some of Bacon's fear lest the chaff has come down to us and the solid grains have sunken by their own weight. He is not ready to make a simple dichotomy of his world and suppose that merely because any matter has ceased to be vocationally useful it thereby becomes culturally useful, but sees a third possibility—namely, that it might not be useful at all. Although he is interested in attaining essentially the same ends as the member of the other school, he is not willing to have any lost motion in reaching these ends. He therefore proceeds to subject all proposed means to a careful scrutiny to determine the extent to which they can really serve the purposes that they claim to serve. In testing the claims of materials that purport to serve vocational ends, he analyzes the demands of vocations into their elements and measures the power each proposed means possesses for realizing these specific ends. When he turns to culture, to morality, to health, to citizenship, he similarly analyzes these and compels each element claiming to further

them to make good its claim. He asks not often after the dollar mark, but always for the certificate of genuineness. It is this uncompromising scrutiny, and this relentless rejection of anything that rests its claim upon prejudice rather than upon proven worth, that gets for him, from the more timid, the camouflaging charge of philistinism. The difference between the two schools is not at all one of refinement, of spirituality, of culture, as it is usually taken to be, but one of definiteness, of analysis, of husbanding of resources, of efficiency.

It may, of course, be that propagandists could be found who do not take this broad view of the meaning of usefulness, but who would banish from the school everything that does not contribute directly to the making of a living in the narrow, material sense. But, if this is true, it is only another verification of the fact that a few of any kind of freaks can be found in a world so big as this. But the great mass of men, both outside and inside the circle of professional students of education, who are urging that our schools be reformed in the interest of greater usefulness on the part of its products, have in mind the broad connotation of utility indicated above.¹

Relative Utility.—Utility, then, must be our criterion. Nothing has a right to engage the energy of the school that is not in some way useful. But we must now take a further step. Mere *absolute* usefulness is not in itself an adequate criterion. For a case of usefulness can be made out for almost anything. There is scarcely any activity, or set of activities, so trivial and irrelevant that they do not subserve some use. Even a course made up of counting the blades of grass on the school yard would be useful from the standpoint of absolute utility, for one would probably develop through it a certain amount of patience, some methods of grouping the blades that might prove of some value elsewhere, and

¹ For survey of the different kinds of values see Rudiger, *Principles of Education*, chapters VII to IX, or Bagley, *Educative Process*, chapter VIII.

considerable fresh air and exercise. But the absurdity of such course appears when one compares the advantage accruing from it with that which might have been attained had the same amount of time and energy been put into some saner effort. Our test must be, then, not *mere* utility, but *relative* utility. We must select such material and such methods as will yield the *greatest amount* of goods in the time at our disposal.

More than fifty years ago Herbert Spencer drove home this truth with telling effect. He said:

“The question which we contend is of such transcendent moment, is, not whether such or such knowledge is of worth, but what is its *relative* worth. When they have named certain advantages which a given course of study has secured them, persons are apt to assume that they have justified themselves; quite forgetting that the adequateness of the advantages is the point to be judged. There is, perhaps, not a subject to which men devote attention that has not *some* value. A year diligently spent in getting up heraldry, would very possibly give a little further insight into ancient manners and morals, and into the origin of names. Any one who should learn the distances between all the towns in England, might, in the course of his life, find one or two of the thousand facts he had acquired of some slight service in arranging a journey. Gathering together all the small gossip of a county, profitless occupation as it would be, might yet occasionally help to establish some useful fact—say, a good example of hereditary transmission. But in these cases, every one would admit there was no proportion between the required labor and the probable benefit. No one would tolerate the proposal to devote some years of a boy’s time to getting such information, at the cost of much more valuable information which he might else have got. And if here the test of relative value is appealed to and held conclusive, then should it be appealed to and held conclusive throughout. Had we time to master all subjects we need not be particular. To quote the old song:—

Could a man be secure
That his days would endure
As of old through a thousand long years,
What things might he know:
What deeds might he do!
And all without hurry or care.

“ ‘But we that have but span-long lives’ must ever bear in mind our limited time for acquisition. And remembering how narrowly this time is limited, not only by the shortness of life, but also still more by the business of life, we ought to be especially solicitous to employ what time we have to the greatest advantage. Before devoting years to some subject which fashion or fancy suggests, it is surely wise to weigh with great care the worth of the results, as compared with the worth of various alternative results which the same years might bring if otherwise applied.”¹

Disregard of Principle or Relative Utility.—Yet, obvious as this principle is, it is persistently disregarded by most persons in discussing educational values. For the defense of Latin, for example, an exhibit is got up showing many words derived from this source, English poems influenced by classical models, Latin terminology in law, medicine, and theology, survivals of Roman customs in military organization, etc. In observing such exhibit the layman is perfectly astounded at the number of ways in which Latin is there proved to touch modern life, and gathers, of course, that the values shown are only hints of countless others and that they are not only possibilities but actual attainments of the usual Latin class. As a matter of fact pains were taken to search out as many points of contact as could be found, and trivial ones are paraded as if they were important. No distinction is made between what are mere possibilities of the subject and what are its probable attainments, nor is the question at all suggested as to whether many more of the possibilities indicated might not be attained in a course very different from that which it is the classicist’s intention to defend by

¹ See reference at end of chapter.

means of his exhibit. By a similar effort an equally impressive case could be made out for astronomy, for geology, for psychology, for economics, for sociology, and for the manual arts—which studies Latin is largely responsible for crowding out of the schedule of many pupils. It is not the strength of the case that can be made out for any curricular element when taken by itself that counts, but the case that can be made out for it in comparison with the case that could be made out for other matter that might have replaced it. That one learns some English through studying Latin is of little consequence; the question is whether he learns more English by studying Latin than he could learn by studying, with equal diligence and for an equal length of time, properly constructed courses in English *in addition to the ones which he would anyway be taking*. That one has occasion to use, a time or two each year, an equation from algebra does not in itself constitute a defense of that subject. The decisive consideration is whether he might not, in some other way, be getting training that would function much more frequently and in equally vital situations. The school career of the youth is at best all too short and we must use it to the greatest advantage by filling up every moment of it, not only with the useful, but with the relatively most useful.

Test of Relative Utility.—But how are we to know what is relatively most useful? Are there any general principles on the basis of which we may decide? There are, as it seems to the writer, several.

*Frequency of Recurrence.*¹—In the first place, other things being equal, that is relatively most useful that promises to function most frequently in the life of the pupil. If choice must be made between training that will prepare the child for dealing with a problem likely to recur five times and that for an otherwise equally vital problem likely to recur ten

¹ Of these tests for relative usefulness the first, third, and fourth are restatements of those of Professor Yocum (*Culture, Discipline and Democracy*, chapter VII). The second is added by the writer.

times, the latter must be selected. On this ground a knowledge of the capital of one's own state and of near-by, or politically active, states is more useful than that of remote and politically insignificant ones, since one has occasion to use the former fact, or set of facts, more frequently than the latter. Likewise the ability to handle the simple equation in algebra, or to manipulate such formulæ as those taken from physics, is worth more than a mastery of surds or of the reversion of series. So the ability to speak the English language correctly, to understand the physics of the electric bell and the chemistry of bleaching, or to discriminate between a good short story and a trashy one, is of relatively greater value than the ability to classify figures of speech, to find by diagram the character of an image formed by a lens, or the mastery of Milton's *Minor Poems*. By this same test, too, it is not unlikely that new courses, made up from the psychological laws which bear upon the control of one's own conduct, the principles of economics, the matters which have to do with marriage and the rearing of a family, and the social usages of the day, would prove relatively more useful than some of the conventional ones. This test does not, of course, involve selecting the spacially and temporally near-at-hand, for the remote in space and time may touch a man's experience more frequently than the present and the near, but it does involve choosing, as between alternatives otherwise equal, that one which is likely to enter most often into the learner's future life.¹

The frequency of recurrence to which we refer must, however, be that in the experience of the particular pupil in question. It is not frequency of recurrence in the life of some ideal man, or special class of men—the average man or the specialist, for example. This fact is often overlooked. Because the specialist has many occasions to use some phase of algebra or trigonometry, it is imposed upon the general student. Yet, in the experience of that great majority who are

¹ See Appendix B.

not specialists in this field, the problems thus prepared for may not be frequently recurring at all. Great relative importance for one man does not indicate the same importance for another; even great relative importance for the majority does not indicate the same for a minority whose central interests and problems may be different. Even so keen a critic as Herbert Spencer overlooked this distinction between usefulness to the specialist and usefulness to the general student and based his advocacy of various elements of science in the training of the latter upon arguments which applied only to the case of the former; ¹ and one seldom hears a popular discussion of educational values to-day that is not vitiated by this same confusion.

Importance of Relationships.—In the second place, that is relatively the most useful that gives promise of entering as a factor into the most critical situations. Some emergencies which confront men are of such extreme importance that preparation against them must be made although it is expected that they will be met but seldom—possibly not at all. In this class is the ability to swim. One may never be in a situation where only the ability to swim will save him from drowning, and he is not at all likely to be in such position frequently; yet the urgency of being prepared to meet such issue if it does come, places a value upon training for it that is entirely out of proportion to the frequency of its occurrence. Similarly the occasion to choose a life-mate comes, in the life of any one individual, only a very few times—usually only once—but the importance of the choice is so great that, if the school can do anything through training to make that choice more intelligent, it certainly would be justified in doing so in spite of the infrequency with which the training will have occasion to function. In algebra or geometry there are found elements which, in themselves, have little or no practical application outside of school, and even within the school are of no value except as leading up to other stages of the subject; yet they

¹ *Education*, Section I, "What Knowledge is of Most Worth."

are indispensable as a preparation for these later really useful phases of the subject; hence they must be given a place in spite of the infrequency of their applications. These are examples of a considerable number of elements which must be given a prominence out of proportion to the frequency of their occurrence on account of the very great importance of preparation to meet the emergency for which they prepare when it does come.

Many-sidedness.—Again, that is relatively most useful, other things being equal, that is most many-sided and integrating in character. In the teaching of physics one may be confronted with the necessity of presenting some phase of the pure science or of the applied science. Thus in respect to the movement of water through a piping system, one may be obliged to choose between giving to the class the empirical formula

$$V = \sqrt{\frac{H \times 2500}{l \times \frac{13.9}{d}}}$$

and drilling the pupils in its specific application, on the one hand, or initiating the students in the theories of hydrostatics which underlie this movement, on the other hand. Of these two sets of materials the latter is evidently more many-sided and integrating, for it is applicable to a hundred different situations while the former is restricted to a single kind of situation. Moreover the latter binds up one phase of the world for the pupil into a rational unity, while the former leaves that world fragmentary and irrational. If, therefore, all other conditions are equal, it is plain that there is a decided advantage in favor of the many-sided and integrating presentation. That other conditions remain really equal, however, demands that the teacher be able, in the same amount of time, so to make the pure-science presentation that the principle will be equally definite, clear, interesting, and capable of ready application on the part of the pupil. If this

condition be not fulfilled, the difference in concreteness and ready applicability may be sufficient to rob the pure-science approach of its claim to superiority. The reason why the pure science so often proves less useful than the applied is because the former remains abstract and detached, in the mind of the student, from the concrete world. Its many-sidedness is only potential and cannot be made actual unless the training of the pupil is carried so far that he not only acquires a mastery of the principle as such but also an insight into the possibility of its wide application, a knowledge of how it is to be applied, and a habit of actually applying it to the several situations upon which it bears. It is not potential many-sidedness, but actually functioning many-sidedness, that counts.

On the same ground, as between a chemistry that presents a set of formulæ for removing stains and one that teaches the fundamental principles of oxidation, the latter must be chosen if, but probably only if, it can guarantee power of equally facile application. Likewise, in the teaching of Greek history, if *Alcibiades* can be made to suggest and to symbolize many of the attributes of Athenian life—even though they be chiefly its weaknesses—while *Miltiades* is comparatively meager in suggestive and correlating power, or if the Olympic Games can bring to mind and can illuminate much of the Greek spirit while the story of *Laocoön* but little, it is plain that the former in each case must have the preference.

So in the teaching of civics, of arithmetic, of geography; one should lay hold, for teaching purposes, upon those elements through which as many others as possible are integrated, and thus should seek to develop concepts that are as rich as possible in what they suggest and explain.

Personal Appeal.—Finally, that is relatively most useful, other things being equal, that can, at the stage in question, make the strongest personal appeal to the learner. A pupil learns only by self-activity, and whatever stimulates him to the most vigorous effort in pursuing it, involves, other things being equal, the greatest amount of growth. Of course this

attractive stimulus, if it is to possess a valid claim, must induce him to make efforts that are in line with the realization of the educational aim. There is no educative value in *mere* interest, apart from a consideration of the direction in which it impels. But if, of the alternatives between which the schoolman is called upon to make choice, one is more directly in line with the educational aim than the other, the premise is overturned—other things are not any longer equal. But as long as the premise set up obtains, it is clear that the matter which can be made to appeal most strongly is educationally most valuable.

There are many reasons why any subject-matter makes a strong appeal to pupils. Professor Yocum stresses the value of its ability to make a sensational appeal. Such words as Popocatepetl, aurora-borealis, and Minnehaha are attractive to the child because of the cadence, and perhaps of the repetition of sounds, involved in their pronunciation; and this trait, according to Yocum, should count in their favor when the teacher chooses between rival elements of subject-matter. Likewise certain musical rhythms, or combinations of color or form, or tripping or sonorous passages in literature, are more attractive to children than others. The advocates of the utilization of interest as an educational means have pointed out for us many other attributes which subject-matter must have if it is to engage the pupil vigorously: it must relate itself to those instincts of the pupil that are then operative; it must satisfy the curiosity that is, at the time, uppermost; it must fall within the pupil's power of comprehension and yet involve some step beyond what he already possesses; it must come to him revealing the earmarks of practical usefulness, so that he attempts to lay hold upon it for that reason which prompts all of one's responses—that he may thereby better cope with the problems which to him seem vital. If, of rival bits of subject-matter between which the educator must choose, one possesses the possibility of making such appeal, or of being so put by the teacher as to make it, while

the other does not, or possesses that possibility to a less degree, the former, other things being equal, should be selected.

This does not, however, involve that only the attractive should be taught. Much must be taught in school that is in itself unattractive, and some that cannot be made interesting even after the application of the best ingenuity of the teacher. It would be a very great pedagogical error to omit this from the pupil's training merely because of its unattractive character. If essential it should go into the course and, if necessary at a certain stage of the child's training as a basis for what is to follow, it should be put in at that stage where it is needed. But if it can fit into one stage or another, or if the choice is between it and some other matter of otherwise-equal importance, the principle laid down above should be adhered to.¹

Exclusion of Subject Matter.—It may be well to approach also from the converse side this task of reducing our subject-matter to what we can hope to master in the relatively short time at our disposal during the pupil's school career. There is much matter which suggests itself for inclusion in the curriculum that can be appropriately rejected. Professor Frank McMurry gives the following tests for such rejection.²

1. Whatever cannot be shown to have a plain relation to some real need of life, whether it be æsthetic, ethical, or utilitarian in the narrower sense.
2. Whatever is not reasonably within the child's comprehension.
3. Whatever is unlikely to appeal to his interests; unless it is positively necessary for the first very weighty reason.
4. Whatever topics and details are so isolated or irrelevant that they fail to be a part of any series or chain of ideas, and therefore fail to be necessary for] the appreciation of any large point; this standard, however, not to apply to the three R's and to spelling.

¹ The student should not fail to read in connection with this chapter, chapter VII of *Charters Curriculum Construction*, where an extensive literature of scientific studies of relative importance is summarized.

² See reference at end of chapter.

To these Professor Yocum adds the following:¹

5. Whatever is antagonistic to any phase of the educational aim.
6. Whatever is not useful to the majority of individuals who are not specialists, or in a specialized phase of education, to the majority of those who are.
7. Whatever is either being effectively taught outside the institution for which the course is intended, or which cannot be effectively taught within it.

The converse of McMurry's tests was expressed or implied in the tests for relative usefulness given above, and hence they need no further defense; but a few cautions to be observed in the interpretation of them are called for. *In the first*, "plain" must not be understood to mean necessarily *obvious* in the sense that "they who run may read." There are very real educational values that are not obvious to the casual observer but that can be uncovered by thorough inquiry. *Plain* must mean *convincingly demonstrable*. Whoever claims indirect or hidden values on the part of educational processes is put, by the nature of his claim, upon the defensive and may legitimately be required to prove that these supposed values are not fanciful, and that he is not actuated in his belief merely by the momentum of tradition. In view of the present temper of students of education the only admissible demonstration of a *plain relation* is one that rests upon a scientific analysis of the ends to be attained and a quantitative measurement of the extent to which the supposedly valuable element functions in attaining this phase of the end.

In the second test McMurry does well to use the term, *reasonably*. It is certainly appropriate to teach some things that the child cannot, at the time, fully comprehend, as, for example, the four fundamental operations in arithmetic in advance of a rigid mathematical proof of their validity. It may also be appropriate to teach matter which the child, at the

¹ Professor Yocum offers his tests *instead* of McMurry's, but to the writer it seems that the two sets of tests are complementary rather than mutually exclusive.

time, only partially comprehends, but which he will grasp more fully as time goes on, as the truths of religion and morality, or poems which he memorizes while young but of which the full meaning does not dawn upon him until long afterwards. Professor Yocum stresses greatly the importance of teaching much that is beyond the child's full comprehension, for the sake of the impressions and the partial concepts which result and which he considers of vast educational importance. Schoolmen are, however, on the whole, apparently losing some of their old confidence in the doctrine that it is economical to have children learn mechanically matter of which they can grasp the significance only much later; ¹ and, until experiment demonstrates more clearly than it has yet done the value of such relatively blind learning, McMurry's position is to be recommended as the safest.

Test three is somewhat misleading as it stands. It cannot be accepted if it is to imply that the child's interests must be taken just as they are found, and that the teacher must always so choose his matter as to fit into these capricious interests. The child's state of mind must not alone determine what educational experiences he shall be carried through, for education must be a constructive and purposive process—guided by the teacher toward a selected end. And not seldom the attainment of this end demands processes toward which the child does not spontaneously tend when left to himself—demands, indeed, a type of effort that is strongly contrasted with passive interest. But if the test be made to read “whatever *cannot be made* to appeal to his interests” and the additional proviso be still allowed to remain, the test is a legitimate one. For the apperceptive attitude of the child can be so manipulated by the skillful teacher that anything with which the pupil has potentially any vital point of contact may be made to appeal to his interests, and whatever is not susceptible of being so presented as to engage the vigorous self-activity of the child is, to say the least, of doubtful educational value.

¹ See, for example, chapter XIII in Parker, *Methods of Teaching in High Schools*.

Test four is, on the whole, appropriate; for the fragmentary and the isolated lead one into no generalizations, and in a world where particulars are all different, but yet where these particulars are exemplifications of underlying general principles, it is generalizations upon which any widely applicable education must depend. But Professor Yocum has shown that there should be more exceptions to this principle than McMurry allows for.

Under *test five* (Yocum's first test) would come everything that militates against the realization of any phase of the educational aim instead of furthering it. Such matter would be illustrated by selections from literature or from art which make vice look attractive, or otherwise tend to weaken the morals of the pupil; by topics from history, or by a mode of distributing emphasis in teaching these topics, which tends to develop un-American traits, as the history of Napoleon so presented as to lead to an admiration of a self-seeking adventurer or of the militaristic spirit, or as the dragging unnecessarily into American history of a ruthless realism which would rob the pupil of his pride in his country or his patriotic devotion to it. It would also be illustrated by the inclusion of such matter in the teaching of sex hygiene as would heighten sex proclivities instead of making for their control (anatomical details regarding the sex organs, for example), such matter in ethics as would tend to induce a morbid attitude in conduct, or such participation in school dramas as would tend to cultivate mannerisms or habits of expression which the school is elsewhere striving to combat.

But the scope of this test should be broadened a little. It should include not only that which is definitely antagonistic to any phase of the educational aim but also that which is irrelevant to it. The former material is positively harmful, and as such should surely be excluded; but the latter involves a pure waste of time, and as such is certainly also an illegitimate intruder in the curriculum.

Test six combats the temptation, so frequently yielded to

in the past, to impose upon the general student what is useful only to the specialist. Even Herbert Spencer committed this blunder in one of its grossest forms; he based the claim of mathematics, and various other sciences upon the importance of those uses which the specialist alone makes of them. That algebra is extremely useful to the engineer, chemistry to the manufacturer of dye-stuffs, and anatomy to the physician, is no reason whatever for imposing them upon the general student, at least not on the plea of their vocational usefulness. Nor is there any justification for imposing upon a group of students, who are being trained as specialists, any phase of mathematics, of anatomy, or of physics, on the ground that it is essential to their vocational efficiency if these cannot be shown actually to function in the prosecution of the work for which they are being trained—a blunder which many technical schools, according to the testimony of specialists trained in them, are also making.

The last test, the seventh, appears on the surface to be a truism. And yet it is worth including. Training is going on outside of the school as well as inside, and the activities of the school are not always as wisely correlated with other educational efforts of the community as they might be. Doubtless the school not only leaves undone some things that adequate preparation for shop or office demands but does what the shop or office must necessarily duplicate, and thus wastes time. The moral and religious training, the education in manners and in social forms, the initiation into the world of music and art, the sex education, that the school gives must all be dependent upon that which is given outside the school. The physical training, too, the social center work, the educational and recreational facilities for adults that the school shall undertake, must be decided in the light of what outside agencies are doing. The more the school can induce outside agencies to do, and do well, the more energy it itself can have to devote to fields yet unworked. On the other hand, if outside agencies are leaving undone what needs to be done—

even though these matters unattended to are those which we ordinarily think of as belonging to home or church or other non-school agencies—as, for example, sex education, moral training, and the elementary principles of politeness—the school must step in and fill the gap by doing them.

That the last clause of this test—reject “all that cannot be effectively taught in the school”—is fitting, needs no argument. How much must be rejected on this ground, however, in this day when we are constantly finding means of doing effectively what has hitherto been called desirable but impossible, is not so clear. Just as it is the hope of invention in the industrial world to find devices for meeting any urgent need, so it is the hope of the school to find a way of administering effective training for any type of vital problem that life affords.

Conclusion.—From what has been said in this chapter it is plain, then, that we have three classes of possible subject-matter, which classes, of course, shade into each other. At the one extreme we have that matter which is indispensable for the proper training of the child. This must, under all circumstances, be given a place. It has first claim upon our attention and must be given as much time as its thorough mastery requires. At the other extreme we have that matter which is of negligible importance, or even positively harmful and thus de-educative. This we must reject, altogether apart from the question of available time. Between these two extremes we have much matter of varying importance, all of which we should like to use if we could but most of which we must forego on account of lack of time. Out of this we should make choice by applying the principles of relative usefulness.

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Run through a pretty wide sampling of the controversial literature on making education “practical” and determine what proportion of the controversy rests on an incorrect understanding of what is meant by “useful.”

74 FOUNDATIONS OF EDUCATIONAL SOCIOLOGY

2. Make a search through text-books in such subjects as Physics, Chemistry, Algebra, Geometry, and Biology for elements that, measured by direct applications, have little or no value but that are indispensable to the mastery of matters which are directly useful. Are there many of these?
3. Propose a method for ascertaining what are the items in place geography relatively most worth learning and try out your method far enough to develop a partial list.
4. Similarly propose, and try out, a method for determining which items in history are relatively most useful on the basis of their many-sidedness of application. Propose a method for combining the tests of frequency of recurrence and many-sidedness. (See *17th Year Book of the National Society for the Study of Education*, Part I, pages 164 et seq.)
5. Go through a typical text-book in arithmetic and see whether you can find problems, and if so how many, that appear to be useful only for those who are going to be specialists.

SELECTED REFERENCES FOR FURTHER READING

- CHARTERS, W. W., *Curriculum Construction*, chapter 7. (Summary of scientific studies on what is relatively most important.)
- FLEXNER, ABRAHAM, *A Modern School*. (A pamphlet published and distributed very widely by the General Education Board. It created a furor of discussion throughout the country. It is a good, but fairly mild, putting of the case for practical education. Most of its principles are now being worked out in the Lincoln School.)
- SPENCER, HERBERT, *Education*, Part I. (One of the great educational classics.)
- YOCUM, A. D., *Culture, Discipline, and Democracy*, chapter 7. (Tests for relative utility.)
- MCMURRY, FRANK, *N. E. A. Proceedings*, 1904, pages 194-202. (Paper on "What Omissions are Advisable in the Course of Study and What Should be the Basis for Making Them.")
- FREELAND, GEORGE E., *Modern Elementary School Practice*, chapter IX. (Discussion of utility as basis for selecting materials, with illustrations.)

CHAPTER V

SCIENTIFIC BASES FOR RECONSTRUCTION OF THE SCHOOL CURRICULUM

Need for Specific Educational Objectives.—In our preceding chapters we have seen that education must prepare adjustments for (fitnesses for meeting) the problems of real life. Such a principle is easily announced, and is readily accepted by nearly everybody, as a principle. But these *problems*—what are they? There's the rub! A philosophy of education that involves viewing it as a set of specific preparations for specific emergencies commits its advocates at once to a sociological study of almost endless complexity and immeasurable difficulty in order to discover these particularized objectives. Under the régime of the old doctrine of formal discipline the search was short and easy. To fit one for meeting all the problems of real life it was only necessary to *strengthen his mind* by whipping it round any sort of a racecourse. But with the collapse of that dogma, we are face to face with the necessity of isolating the particular fitnesses that one needs for getting along in life, and of purposively developing each of these except, of course, those that nature and by-education will automatically take care of. Even where some sort of manifold application of "general" training is presupposed—and some of it must be presupposed at every turn—the kind of transfer required must be foreseen and the transferable elements so taught as to insure their functioning.¹

Thus, whether relatively general or highly specific, each educational activity must prepare for *some* situation that can

¹ For such conditions see Yocum, *Culture, Discipline, and Democracy*, chapter 3; Bagley, *Educative Process*, chapters 13 and 14; Colvin, *The Learning Process*, chapter 16; Heck, *Mental Discipline*; and Rugg, *Experimental Determination of Mental Discipline in School Studies*.

be predicted as likely to confront the educand when he leaves school or earlier.

Stating Values of Studies.—In consequence, teachers of every subject should be called upon to state their objectives in terms of the specific fitnesses to which their subjects are alleged to contribute. Such challenge is not new. It has been thrown down repeatedly of late by school children, by parents, and by professional critics of our educational system. But the clamor has at last become so insistent that teachers in all departments—even the oldest and the best entrenched—have been constrained to reply, so greatly constrained that the gatherings of the teaching clan in certain fields have been devoted largely to apologies for, and defenses of, their subjects. And out of this frenzied defense there have emerged many plausible claims as to the educational values of current studies.

For example, the study of Latin is alleged to improve the pupils' English; algebra is said to give the necessary ability to interpret graphs when met in modern magazine literature; geometry to give an appreciation of circles and angles used in architecture; history to train for citizenship and to give an understanding of present-day institutions; manual training to contribute to vocational efficiency. The writer has even heard mathematicians contend that geometry, because it involves parallel lines, would help one to hang pictures straight on the walls and that "Mathematics" is necessary to enable the laborer to count up how many hours he has worked; Plato even raises the stunning question as to how, if the soldier had not studied arithmetic (for him the philosophy of number), he could count his two feet.

Unscientific Basis of Most of These Claims.—But most of these claims rest, not upon careful scientific inquiry nor even upon dispassionate observation of the outstanding facts, but upon blind faith.¹ They are generally only excuses for the retention or extension of the subject. Except in rare instances the advocates themselves do not consciously and

¹ See Snedden, *Problems of Secondary Education*.

systematically even *attempt* to attain the values they claim for their subject but expect these to come merely by the way while they pursue other and more concrete objectives. When taken under scrutiny most of the claims prove surprisingly groundless.

1. Many of the claims are entirely *unsubstantiated by the facts*. A frank recognition of conditions does not show that history as long taught in the elementary and secondary schools makes much contribution to good citizenship. If one will ask himself in just what way the history he has studied, or the history he is teaching, has affected or could be expected to affect one's civic reactions, he will find himself able to locate very few actual contributions. What did he learn about Lincoln or Washington or Jackson that could induce him to go to the polls when otherwise he would have stayed at home? What political event or economic principle was so discussed in his school history as to change his vote from a particular Republican to a particular Democratic congressman? The claim of contribution to citizenship seems very plausible until one presses for details; then it vanishes into thin air. Similarly, it has never been shown that a study of Latin necessarily contributes toward the improvement of English style. Such scientific studies as have been made are very far from confirming the claim,¹ and some of them point in exactly the opposite direction.² When one stops to think, one recognizes that the way in which circles are studied in geometry could not contribute to the development of æsthetic appreciation of circles as used in buildings or in linoleum designs. And so with numberless other claims.

2. Many of the claims *rest upon an a priori consideration of possibilities*, not upon probabilities. That the study of Greek and Latin should induce in one an appreciation of the classic foundations of modern civilization and give him direct

¹ See Starch, *Educational Psychology*, pages 228 to 250 for summary.

² See Brown, *Latin in the Secondary Schools* or the article by Miller and Briggs in the *School Review*, vol. XXXI, pp. 756-62.

access to a rich literature for his æsthetic enjoyment, is an abstract possibility; but no observant person would believe for a moment that it is likely to do this with the mass of high school pupils who take the study as it is offered in the secondary schools. Nearly all the alleged transfer values are possibilities, not probabilities. The many practical applications claimed for several studies (as algebra, physics, mechanical drawing) are mostly probabilities only for the specialized few, while for the many they can scarcely be regarded as even in the realm of possibilities.

3. Where the claims are true they are often so *vague and large* as to help us scarcely at all in knowing where concretely to take hold. Studies are said to develop initiative, or self-reliance, or judgment of relations, or personal culture; but these are all omnibus ideals that illuminate the whole area but do not provide us any guiding star to lead us onward. They need to be broken up into such specific forms as will suggest to us how we should proceed in teaching them so as maximally to realize these ends.

Scientific Evaluation.—We need to replace these empirical conclusions regarding the values of the several subjects with scientific investigations that will be impersonal, systematic, observational.

1. Fundamentally we shall need to know, on a scientific basis, what are the values that are needed in society—the fitnesses that individuals must have if they are to be socially efficient in maximum degree.

2. Next we shall need to determine scientifically what is the subject-matter that can make largest contributions toward these desired ends.

3. Then we shall need to know, on an experimental basis, what are the methods of handling the subject-matter that will be most economical of time and energy.

4. Finally, we shall need to have some adequate measuring instruments that will enable us to tell whether or not, and how largely, we are succeeding in actually attaining these ends.

The last of these—scientific tests—are in the making and much headway has already been achieved. Scientific experimentation in method is scarcely two decades old but we have for it now a well-developed technique and many significant findings.¹ The systematic study of the educational values of subjects has not yet been pushed very far, and must really await progress in the next to be mentioned, but something substantial has even already been done with it.² The first of the list—the scientific study of the needs of society—has been most neglected. Yet it is the head of the corner. All of the others are relative to it. But it is also by far the most difficult problem. It is the fundamental task to which Educational Sociology must first address itself.

Psychological Objectives.—One type of analysis of the ends of education is into what are called *psychological objectives*. As long as we attempt to educate the person merely in a lump fashion, we cannot get very far. Educating involves bringing about definite types of changes in the physical and psychological make up of the educand. It is only when we are definitely aware of what types of traits we are seeking, and when we adopt methods of procedure specifically calculated to attain the psychological result desired, that we make maximum headway. Such analysis of psychological objectives has been already pretty well worked out. The list given below follows, in the main, that developed by Professor Bagley in his *Educational Values*, but makes a few additions.

1. *Inherited Controls of Conduct.*—(a) Simple reflex movements, and (b) instincts and impulses. These make the starting point for education. They are the stuff from which the finished product is made.

Consider as points of departure for education the instinctive tendencies to curiosity, play, imitation, acquisition, and gregariousness. Show how habits may be developed out of impulses.

¹ For summaries of some of these see Starch, *Educational Psychology*, Part III.

² See Inglis, *Principles of Secondary Education*, Part III.

In respect to inherited controls the function of education is threefold, namely to:

(a) Sublimate certain instinctive tendencies—that is, direct them into somewhat changed and useful channels.

Consider sex, fighting, pride, collecting, etc.

(b) Confirm and fix some.

Consider co-operation, sacrifice, sociability.

(c) Repress and thus eliminate some.

Give examples.

2. *Habits* (acquired automatic responses to specific situations).—These are formed through drill and automaticity should be the goal in their development.

Discuss the value of habits. Illustrate the functioning and the value of automatization in school management and instruction, and discuss the conditions essential to its realization.

3. *Information*.—This is useful in several different stages of explicitness: impressions, facts, concepts, principles, systems of principles.

Discuss the meaning and the value of each of these. In what ways is a grasp on principles superior to a body of specific habits.

4. *Ideals* (emotionalized standards).—An ideal involves an (1) idea (2) emotionalized. Consequently there are two stages in its development: (1) intellectual clarification and acceptance: (2) evaluation (attaching worth thereto).

5. *Biases* (prejudices, taboos, tastes, interests, likings).—These are largely taught by imitation, suggestion, and social radiation.

6. *Attitudes* (appreciations, perspectives).

7. *Methods of Thinking and Acting* (comparable to the

policies of an executive).—These are such generalized habits as psychology makes possible.

Social Objectives.—Considerable headway will have been made towards setting up for ourselves specific objectives when we shall have determined whether we want to develop in our pupils, as a result of our day's efforts, habits, or ideas, or ideals, or biases, or appreciations, or methods of thinking. If we want habits, we proceed in one way; if ideas, we proceed in another way; if ideals, in still a third way. But to make this psychological analysis is to go only half the distance or less. For we are immediately confronted with the question, What habits? What information? What ideals? What biases? What appreciations? What methods of thinking? Obviously we cannot form habits or ideas or any other of the controls merely in general. We must always be forming some specific habit, or giving some specific bit of information. And it is not by any means a matter of indifference which one we give. Certain particular ideals, or ideas, or habits, or biases are needed for preparing our pupils for maximum efficiency in life. Whatever time we devote to those not in this category is wasted time; whatever ones we miss out of this list leave gaps in our "ward's" fitness for life. Purposive education, therefore, demands that we ascertain what are the particular habits needed for one's vocational efficiency, for his cultural efficiency, for health, for civic efficiency, for morality, and for domestic efficiency; what are the particular bits of information needed in each of the careers; what are the ideals, the biases, the appreciations, and the methods of thinking that are needed. These are the social *objectives*. These social objectives we need to ascertain, not by a fragmentary and empirical consideration that haphazardly hits upon some and misses many others, but by a systematic and scientific survey of social needs.

Nature of Scientific Method.—But what is involved in making a scientific survey of social needs and of educational values? How will a scientific study differ from the empirical

ones that have from time to time been attempted? In exactly the same way in which all science differs from common sense—namely, merely in being more systematic. It adds to the naïve observation of everyday life a very careful control of the conditions of observation.

1. It *suppresses the personal equation* of the investigator. One is extremely likely to see in a situation what his predilections dispose him to look for. Everyone views the world from particular angles, and, without any intention to misconstrue, tends to apperceive all matters in a way that is influenced by his personal biases.¹ Against this *ex parte* attitude the scientist resolutely steels himself. It is a part of his scientific equipment to be able to maintain a neutral and impersonal attitude in his interpretations.

Illustrate this contrast.

2. The scientific method is *analytical*. It seeks to reduce phenomena to their primary elements and deals, at any one time, with only a single variable. Thus it avoids attributing to one element an effect due really to another element that has been accompanying the first. For example, it was shown by the propagandists for the classical languages that persons who had studied the classics made higher grades on the average, and won more honors, than other persons. But further analysis showed that there were involved in this superiority not the single factor of classical study but the dual factors of initial ability *and* subjects studied.² When these two were separated the achievements supposed to be attributable to the subjects studied were found to be due instead to a higher average native intelligence on the part of those who took the classical languages.

3. Scientific procedure is *largely quantitative*. The scientist eliminates the possibility of distortion on account of his personal biases by measuring with the ruler the balance or the

¹ See Peters, *Human Conduct*, chapter 2.

² See Starch, *Educational Psychology*, chapter 14.

clock, or by counting cases. It is very easy to say offhand that most things or men are thus and so, but one is sometimes greatly surprised, when he makes an actual count, to discover how few cases he can find that confirm his statement as compared with those that refute it. The scientific method does not permit one to generalize from lump observation, and from vague impression, but enjoins him first to collect and count, or otherwise measure, his cases, and then let the results speak for themselves.

4. Scientific method demands that one *generalize only on the basis of representative cases*. One is tempted naturally to generalize on special instances that have come to his attention, when, in fact, those may not be at all typical of the whole situation. The scientist either makes a study of all cases as the basis of his inference or, if that is impossible, of cases selected in such a way as to make them truly representative of all. For example, if he is attempting to measure the range of vocabulary of a certain group of people he will put to them, not a list of words suggested by his own caprice, but each twentieth word from the alphabetically arranged list in the dictionary. Having selected the elements to be studied by some such impersonal procedure, he can be reasonably sure that what he finds in them will also hold for all the others.

5. Scientific method *forbids generalization on too few cases*. Naïvely men often generalize on the basis of one or two instances. They are ready to comment on the characteristics of the people of the West, or on the uniformity with which it rains on holidays, or on the extent to which one has use for his algebra, when in fact there is often uppermost in their minds only a single instance. But the scientist holds conclusions in abeyance until he has surveyed enough cases to warrant an induction that will not be in danger of contradiction by the next observation—ten cases, a hundred cases, sometimes even thousands of cases, according to the complexity of the phenomena with which he is dealing.

Scientific Field Survey Needed.—It is by such objective,

impersonal, and systematic procedure that we must search out legitimate objectives for education and weigh educational values. We may not sit in our armchairs and construct arguments, whether defensive or offensive, on the criterion that they sound plausible. We must go to the objective facts and read them for what they are. We must go out in the field and, by the best methods known to science, learn what are the needs men and women are actually experiencing in the daily work of the world. We must ascertain, in the same objective and observational spirit what are the particular "fitnesses" that will enable them best to meet these needs. And then we must determine, by scientifically controlled experimentation, what is the subject-matter and what are the methods of handling it that will most effectively give these fitnesses. By what methods such scientific surveys can be made, is discussed at considerable length and illustrated in Part II of this volume.¹

Eliminating the Personal Equation.—It was said above that scientific method demands the elimination of the personal equation. In the physical and biological sciences, where the methodology we must chiefly use has been developed, this is comparatively easy. Thanks to the meter stick, the clock, and the scales—and to the concreteness of his data—the personal equation of the investigator in the physical sciences has long been reduced to a minimum. He cannot well read his predilections into a situation in the face of a showing of measured centimeters, seconds, and grams. But in certain other departments that have scientific aspirations such objectivity is not so easy. In sociology the data are so complex, so personal, so intangible in character, that a finger cannot be laid upon the central one with the assurance with which it can in more concrete subject-matter. Here the personal equation is harder to eliminate. The judgment factor, in the form of interpretation, enters more largely; hence there is much greater

¹ For excellent summaries of many scientific studies in this field see *Charters' Curriculum Construction*.

room for unconscious and unintentional distortion due to temperament and prejudice.

The device for overcoming the personal equation in such a situation is a resort to *consensus* of judgment. If two persons interpret freely the same situation, their personal biases may be in opposite directions, hence neutralizing each other. If ten persons, or a hundred persons, or a thousand persons all pass judgment, and their judgments are worked up statistically, their personal equations are nearly certain to offset and neutralize each other, unless the judges have been drawn too largely from the same environment. Thus consensus of judgment can give, even in so intangible a field as the social sciences, those impersonal and objective results that science demands.

There have been a few attempts to isolate the elements of efficiency through analysis by a single individual, and Professor Snedden has suggested that a committee of three might make such analysis; but it seems quite clear that the observations of no one man are sufficient for the work and extremely doubtful whether three judges would be enough to make the procedure scientific. But thirty might possibly do so, three hundred probably would, and three thousand undoubtedly would, provided one were not obliged to take less expert judges to get the greater number. The analysis by a single judge, or by a very few judges, would be unreliable for the following reasons at least:

1. He could not sufficiently eliminate his personal equation. In spite of himself he would overlook certain matters and overemphasize others on account of his own experience.

2. One judge, or a few judges, could not be expected to know with sufficient intimacy a large enough *number* of subjects to make generalizations valid.

3. His outlook would be restricted, and his conclusions probably biased, because he could have come into very intimate contact with people from only a limited number of geographical sections, social classes, or occupational groups.

A scientific analysis of social efficiency, if it is to be based

on a study of men in society as the sociological method demands, will therefore require a gigantic scheme of co-operation among competent investigators. Individuals may blaze the way and, as pioneers, illustrate methods, but it will be necessary, through prolonged propaganda and education, to initiate a large force of voluntary co-laborers before substantial headway can be made.¹

PROBLEM FOR RESEARCH

I

Pick out some typical boy or girl to study as a "case." Secure co-operation by explaining your purpose to the child and his parents, and also promising practical recommendations regarding his future school career. If you are a teacher, make the choice from among your own pupils.

1. By observation of the child, conversation with him, and by tests, discover his shortages in respect to health knowledge and habits, to civic and moral attitudes and practices, to cultural abilities, etc. Visit the child's home and consider whether the example set by his parents, together with other conditions and opportunities about the home, are such as likely to increase these shortages or to overcome them. Also consider in the same way the effect of his other out-of-school environment. In the light of these findings make a list of the deficiencies (shortages) with which the child is likely to grow up unless forestalled by the schools. In order to make this list as complete as possible, check it up with the lists of elements given in the several analyses in Appendix A of this book.
2. Talk with the child and his parents about his probable life work. Consider what opportunities he is likely to have for acquiring the abilities needed for success in this vocation, and what are the shortages in vocational abilities with which he is threatened.
3. In the light of your lists of threatened shortages map out an ideal program of school education for him, proposing specific training to meet specific threatened deficiencies. Do not as yet be troubled by administrative difficulties but map out the training that would most economically and completely meet his needs. In studying

¹ Part II of this volume is given to a more technical discussion of the problem of determining the educational needs of society through scientific surveys. Many references for further reading are also given there; and in Appendix A, a long list of specific elements needed for efficient living.

defects and mapping out a program try to avoid such errors as the following:

- (a) Reading your own prejudices into your interpretation of his needs and opportunities, omitting some that do not especially interest you or injecting others that are your special hobbies.
 - (b) Prescribing whole subjects where only parts are needed, as "composition" to meet a few particular types of weakness in English, or "algebra" because ability to manipulate simple formulæ will be needed.
 - (c) Prescribing, on the basis of traditional "faiths," training that has only a mystical relation to the end desired, as, for example, recommending a four-year course in Latin as a means of improving the child's oral English.
4. Now make such compromises between your ideal program and the school offerings that are actually available as are necessary, mapping out for the child what seems the best course possible under the conditions.

II

By the same sort of survey procedure deal with enough members of your class, or of a type group of children, to constitute a fair sampling of the entire group, mapping out an ideal course for the group. Since, now, the whole group is involved, to what extent would it be feasible to get traditional school offerings so changed as to meet the demands of your ideal program.

(The above is the "case method" well known to sociologists. As a rough and ready method it can serve a good purpose in educational research, but leaves considerable room for the reading of one's own "philosophy" of education into the recommendations. For more scientific methods of determining educational needs, see Part II of this volume.)

CHAPTER VI

DEMOCRACY AND EDUCATION

Our Aspiration to Democracy in Education.—We Americans have been in the habit of boasting of the democracy in our educational system. We claim the most democratic system of schools in the world. Vertically considered, our free schools extend from the kindergarten to the university by a single ladder ascent. Horizontally, we have schools accessible everywhere at public expense, from Riverside Drive to the remotest country district. There is in our schools, too, no distinction of caste. There are in them alike the poor and the rich, the dull and the bright, and no snobbishness on the part of one class makes another feel out of place, as is the case with many of the secondary schools of Europe. Certainly in aspiration our schools are as democratic as they could be.

Inequality of Opportunity among Individuals.—But do our actual attainments equal these aspirations? Are our schools in fact as democratic as we claim? Upon reflection the unbiased thinker will be obliged to acknowledge that this theoretical democracy is considerably abridged in practice in a number of important respects.

1. *The abstract-idea thinker is favored at the expense of those of other types of mind.* There is one class of people who do relatively better in handling "counters"—words, numbers, chemical symbols, etc. There are others who do relatively better in handling things—making toys, measuring and sawing boards, cooking meals, assembling and repairing automobiles. Society needs people who are efficient in dealing with material things quite as much as it needs those who can manipulate abstractions; and surely the former have as substantial claim to the good things of life as the latter. Yet our

schools have hitherto been, for the most part, run in the interest of the abstract-idea type of individuals. Some school districts, of course, have provided industrial and commercial courses, manual training shops, printing facilities, cookery and sewing; but only a small percentage of schools have done this as yet, and even where such courses have been established, they are ordinarily given the fag ends of time and interest and teachers try contemptuously to shunt into them only the pupils whom they regard as worthless. We can never have a really democratic system of schools until all types of individuals are given equal opportunity to get the kind of education best adapted to their natures.

Is this last statement true? Is education a "class privilege" if differentiations are based on natural, often hereditary, endowments rather than on inherited social status? What is the reason for the prejudice against education through concrete contacts? See Thorndike, *Principles of Teaching*, page 87. Is it true that the person who does abstract thinking rather poorly is entitled to an education equal to that offered to him who does it well? Equal in what sense? Is the person who cannot do abstract thinking likely to attain as great things for society? Is he worth as much to society? Does his claim to an education rest on grounds of social advantage or on his rights as an individual? How far should a democratic state take the latter into consideration in determining educational policies?

2. *Those with academic minds are favored* as against those in whom the life-career motive is strong. School is a sheltered life and timid or passive individuals prefer it to the buffetings of outside activity. For some people, too, there is pleasure in just learning for its own sake, so that one often hears a person say he would like to give his whole life merely to study. On the other hand, other individuals crave activity. They want to try themselves out with the real work of the world and are impatient at anything that does not hasten, or bear upon, these vital contacts. Probably half our children leave school when they do because they are impatient to work and because they are not convinced that further schooling will contribute much to success in the work to which they look. Unfortu-

nately they are often doubtless right in this conviction. As schools now go they do, without doubt, waste a large proportion of the youth's time on what has no chance to function in making him more efficient, either vocationally or otherwise. Much, too, that is valuable teachers do not "sell" to their pupils and to the public. The remedy for this situation is two-fold: first, reconstruct the school curriculum for each type group so that its materials may be all worth getting, and then, let the pupils and the public into the secret of what the training will be worth and how—that is, sell it to them. Until we do these two things, our schools will be still class schools—for the docile and traditionally minded group with academic temperament.

Is it, or is it not, unjustifiably "soft pedagogy" to share aims with pupils? Can, or cannot, the co-operative attitude on the part of pupils be secured in this way in respect to everything that is really worth teaching? On the part of all classes of individuals? Of all ages? How shall the teacher handle this?

3. In spite of our claim to the contrary, *the children of the better-to-do are at an advantage* over the poor:

(a) In most communities there is some expense for books, pencils, and car-fare. However, in places books and supplies are furnished free by the district, and for reasons of economy as well as of democracy this practice should become universal.

(b) Not all parents are equally able to support—clothe, house, and feed—children during the post-compulsory period while they are attending school. It costs at least two hundred dollars a year to maintain a child between the ages of fourteen and eighteen, and where parents have the small income of a laborer and a large family, they cannot meet this expense without assistance from the child's earnings. If education is to be equally accessible to all, parents must be subsidized heavily enough to cover the maintenance of the children while in school. Some countries have already done this.

Is that too paternalistic? Would it be abused? Could the state afford it? Should all be paid or only those who could not keep their children in school without help? If the latter, would there not be reintroduced the "pauper principle," the objectionable nature of which originally induced us to make tuition free to all instead of only to the poor?

(c) When the children of the poor do attend day school, they are often required to spend time at home in work, while the more privileged have opportunity for study. Under these unequal conditions the two classes cannot be on a par.

Cite instances to illustrate the unfairness and humiliation involved in this inequality of opportunity for home study. What remedy is there? Would the compensation suggested above correct it? Wholly? What bearing upon this matter has supervised study in school?

(d) The public institutions of higher education, including to some extent even high schools, are really free only to those who live within walking distance of them. They provide only free tuition, and possibly free books, which is a small proportion of the total expense where one must live away from home.

To what extent could this be remedied in practice by a system of scholarships for those living at a distance?

4. *Schools are available to the many for only a certain few vocations.* Most high schools fit only for a life of leisure, or perhaps for college. Liberal arts colleges are adapted to train effectively for little else than leisure and teaching. A few of them now equip in a way for social service and for business. Out of the several thousand vocations in which men engage, these are a mere bagatelle. Here and there are to be found vocational schools that train for the higher professions; and in the larger cities and a few rural communities, there are some real trade schools that give vocational training for many crafts. But not one person in a hundred, outside of those preparing for teaching or the other higher professions, has readily accessible a school equipped to give him just the kind

of training maximum fitness for his future work demands—barbering, tailoring, watch repairing, road making, stationary steam engineering, railroad engineering, carpentry, tinsmithing, plumbing, shoe repairing, etc. Our educational system is not democratic until we provide optimum training facilities for each no matter what occupation he contemplates entering, provided only that it be a socially useful one. Theoretically our education is accessible to all, of course, but that is only a mockery until the education offered is such that all will want it. It is no real offering to John to provide what is useful only to James but of no particular worth to John. To have a really democratic system of education we must not only make an offering for those to take freely who can use it while the others leave it, but we must make such a widely diversified (or else absolutely basic) offering that each will find in it what he needs. Otherwise our procedure is just as inequitable as it would be to propose furnishing free shoes to the public yet supply them only in number fives.

This point holds in respect to vocational education; does it in respect to cultural, civic, health, and domestic education? Might the state just as well give up the effort to furnish vocational education on a democratic basis? Or what alternative? How seriously should we take vocational as a part of democratic education? To satisfy the claims of the individual or to subserve the interests of the state?

Consequent Elimination from School.—In consequence of the limitations of our educational system, the mass of our people are in practice not provided with an education extending beyond the rudiments. All, or nearly all, get the work of the first few grades, but they begin to drop out of school at about the fifth grade and all but a negligible percentage have been lost before they have completed the sixteenth grade (college). In 1920, according to the report of the United States Commissioner of Education, 77.8 per cent of the children between the ages of five and eighteen were enrolled in school, with an average attendance for this whole group of 94.3 days, but a disproportionately large percentage of these were in the early

grades. The following table, computed from figures given in the Biennial Survey for 1918-20, shows the distribution:

DISTRIBUTION OF PUPILS BY GRADES

First grade.....	19.5	per cent
Second grade.....	12.4	" "
Third grade.....	11.7	" "
Fourth grade.....	11.3	" "
Fifth grade.....	10.7	" "
Sixth grade.....	9.2	" "
Seventh grade.....	7.8	" "
Eighth grade.....	7.3	" "
Ninth grade.....	4.3	" "
Tenth grade.....	2.7	" "
Eleventh grade.....	1.8	" "
Twelfth grade.....	1.5	" "

A study of the tables for school attendance given in the Report of the Census for 1920 shows that more than 7 per cent of the children who were in school at the age of eleven have left by the age of fourteen; 23 per cent by the age of fifteen; 48 per cent by sixteen; 67 per cent by seventeen; and 80 per cent before the eighteenth year, which would be the normal time to complete the high school course. Only about 4 per cent enter college and less than 1.5 per cent remain to graduate.

Reasons why Pupils Leave School.—There are, of course, a few children who could not be held in school, either to the advantage of themselves or of society, but the great majority of those who leave could be retained in a properly adjusted system. On the question of why pupils leave school, the Federal Commission on National Aid for Vocational Education said, in their report in 1916:

“Whether from necessity or not, the economic fact is that the mass of children go to work as soon as the laws of the various states permit. It is not solely because the children and their parents do not appreciate the value of an education that more than half of the entire number who enter the elementary school do not remain to complete it. It is, at least

to some extent, because neither they nor their parents are able to see in the schools of to-day an opportunity for education to fit for callings which they must pursue."

A recent survey gives the following reasons why particular pupils left school before completing the course :

Ill health.....	5.7	per cent
Had to go to work.....	35.7	" "
Child's desire to earn.....	8.2	" "
Opportunity to keep vacation job.....	2.6	" "
Trouble with teacher.....	3.1	" "
Lack of interest in school or dislike of it.....	29.5	" "
Failure to pass.....	1.1	" "
Belief further public school work would not be worthwhile.....	14.2	" "

Education as Means of Conserving and Promoting Democracy.—What has been said so far has been based on the supposition that, in a democracy, the good things of the state must be equally accessible to all—that each has a right to claim for himself whatever anyone else can claim. But equality of claim on the part of individuals is not the only standpoint from which democracy should function in education. From the standpoint of the needs of the state, as such, it is important that education be broadened and made more functional. A democratic state must rely upon education (through newspapers, lectures, information broadcasted by radio, etc., of course, as well as that of schools) for the conservation of its own existence and for its development. What a nation is, is determined mostly by its system of education. A paternalistic government can protect from external and internal aggression; the struggle for existence, with its pressure upon ideas and social adjustments, can cause to be isolated and retained some elements of progress. But these forces are chiefly only negative or else extremely slow and circumscribed in their positive contribution. But purposive education, in the sense of the molding of men to preconceived ends by all the

teaching agencies, can hasten the slow process of social evolution by many years, even by many generations.

Illustrations of the Formative Power of Education.—China and Germany make excellent examples of how an educational system can mold a nation to shape. In old China the aim of education was to conserve the learning and the customs of the past. The material employed was exclusively the old Chinese classics. Students memorized these word for word, explained them or had them explained, and sought to imitate them in style and content. The best scholar was the man who had memorized most accurately and extensively and also could best imitate the old writers in his own essays—never the one who showed originality. In consequence of this type of education, the nation became absorbed in its past, inscribed within its own closed circle, and made no progress for centuries.

Two generations ago the German rulers conceived a certain plan for the future of Germany and a certain desiderated character for her people. They selected schoolmasters, and evolved text-books and methods of teaching calculated in almost every detail to shape the type of man or woman their dream of the state required. In the practical working out of this ideal they persisted, forging away through all of their educational agencies, until they had brought to a realization this Bismarckian-Hohenzollern dream. The result was the Germany that was crushed with difficulty in the late war, to make way for a different and a better one to be wrought out through changed educational policies. This same phenomenon of the molding force of education could be seen in any other nation, though in most places it has been less systematically and consistently planned and executed; hence its results are not so clear-cut and obvious.

Propaganda is education. Show how that can be used to mold a people as desired.

The Problem for Education in America.—If we are to conserve and develop our nation along the lines involved in our

national program, we must utilize education in a definitely telic fashion with respect to social and political ends—we must foresee what we want to make of ourselves as a people and use education as an engine in that direction. For the realization of our proper destiny, or even for the sake of the preservation of our existence as a nation, we must broaden and democratize our education.

1. We must develop *a system of civic education* that will make our democratic form of government function with at least a reasonable degree of effectiveness. No one could impartially observe the workings of popular control of government without being shocked at the clumsiness with which it is accomplished—the large stay-at-home vote; the very slight acquaintance with, and inadequate means of estimating the fitness of, candidates that must be passed upon at elections, especially at primaries; the general lack of knowledge of the fundamental laws of economics and sociology involved in many policies on which citizens must vote; inability to detect and resist demagogues; lack of proper perspective on progress; and scores of other matters fundamental to the intelligent direction of government. Not only, perhaps not necessarily at all, will an effective system of civic education demand more time than now given to it, but it will require a close analysis of the ends of education for citizenship and the search for means demonstrably adapted to realizing each of these ends.

Would this desideratum be automatically attained if people voted more money for the running of the schools and extended further upward the age of compulsory school attendance? Why?

At the fall election, 1923, seven bills were placed before the voters in the city in which the writer lives, two of which were amendments to the state constitution, four were referendums on bills passed by the legislature, and one was a plan for reorganizing the local school board. Every one of these seven bills failed in the city and county, even including the proposed amendment to strike the words "white male" from the state constitution so as to bring it into harmony with the federal constitution. Those of state-wide application all failed through-

out the state except two which were passed by only a narrow margin, the amendment to strike out "white male" receiving the higher majority, sixteen per cent of the total vote. It is commonly said here that the reason for this wholesale rejection of proposed changes was that the people had not studied the measures and voted "No" to play safe. Yet these very people who would not take the trouble to study laws placed before them for approval had demanded the referendum-provision in the constitution. Can democracy function when people are insistent upon the *right* to pass upon measures but will not take the trouble to look into them seriously when called upon to vote on them? What is the remedy?

2. We must develop an adequate *system of vocational education*. For the most part we have been conducting a school system that eventuates in fitting people for leisure only, encouraging (in spite of protestations to the contrary) the idea that the life of leisure is the ideal life, and developing a certain snobbish contempt for common daily work. The preservation of our place in the front rank of the nations demands that we arouse ourselves from our lethargy and fit ourselves to compete with other nations on terms of equality. Hitherto we have been able to rely upon our extensive national resources for supremacy, but the day when we can longer do that is passing,¹ though that day has been considerably postponed by the relatively bad economic state in which the war placed European nations.

(a) We must have an adequate *system of industrial and agricultural education*. The Commission on National Aid for Vocational Education says:

"According to the census of 1910, there were 12,659,203 persons in the United States, both male and female, engaged in agriculture. While it is impossible to secure accurate figures, it is probable that less than one per cent of these have had adequate preparation for farming. This means that there are over 12,000,000 people engaged in agriculture in this country who are not trained to deal with the soil in

¹ See *Report of the Commission on National Aid to Vocational Education*, Volume I, pages 22-23.

such a way as to make it produce, through scientific methods, what it should yield in order to sustain the present and future life of this Nation.

“Engaged in manufacturing and mechanical pursuits and allied industries there were 14,261,376. It is equally correct to say that not one out of every hundred of these workers have had, or are having at the present time, any adequate chance to secure training.

“The American people have hardly begun the work of providing for the practical education of these millions of our wage workers. In this whole country there are fewer trade schools than are to be found in the little German kingdom of Bavaria, with a population not much greater than that of New York City. There are more workers being trained at public expense in the city of Munich alone than in all of the larger cities of the United States, representing a population of more than 12,000,000. It is substantially true that practically every German citizen who could profit by it may receive vocational training for his life work in the schools and classes supported out of the public treasury. Since commercial prosperity depends largely upon the skill and well-being of our workers, the outlook for American commerce, in competition with that of our German neighbors, is under present conditions not very promising.”¹

How much has this situation been improved by the operation of the Smith-Hughes law, which the committee quoted above was urging?

(b) We need a *system of business education* commensurate with the position of financial leadership we have assumed abroad and with the great problems of fiscal organization at home. Lapp and Mote say:

“The hocus-pocus process of catching on to scientific methods of business is quite inadequate for present-day needs. It does not develop initiative, but is dependent wholly upon imitation. It does not develop a progressive spirit, but is

¹ See also Lapp and Mote, *Learning to Earn*, chapters IV and V.

content to follow archaic methods. It fails to produce a spirit of permanence in business and industry and on the contrary is speculative, insecure, and unethical. Sales managers, failing to realize on stupid or visionary plans, are wont to turn to sharp practices, and our sharp practice has given us a bad name in most of the great markets of the world. Our business men are not prepared to meet the new and changing demands of industry and trade. A superior economic leadership is required. A wider vision is demanded. Our commercial responsibilities have been very much augmented lately by territorial expansion, by the approaching exhaustion of our natural resources, by our increase in population, by the unexpected demand of European countries for our products."¹

To what extent are schools and departments of business administration, like the Wharton School, the Harvard Graduate School of Business Administration, and others, meeting this need? What proportion of future business men do they catch? To what extent are commercial courses in high schools contributing? Do the latter train for organization and leadership? How could they be made to do so?

(c) We need an education for *the management of the home* commensurate with the social and economic importance of this institution. Nearly half of the normal family income is spent on the home in ways over which the wife has chief supervision—food, clothing, household decoration, furniture. There is room here for tremendous waste. Home making is woman's chief vocation. While generally women ply some other occupation for a few years, most of them spend the greater part of their adult lives as managers of homes. Our school system now does something to prepare for this responsibility, but the offerings catch a comparatively small percentage of children of school age. On the other hand, a very large number of women are being educated in home making by other agencies than the school—by the ladies' magazines by visiting nurses, by reading circles, parent-

¹ Read the whole of this excellent chapter on *Business and its Needs*; in Lapp and Mote, *Learning to Earn*, Bobbs Merrill Co.

teachers' associations, national organizations for child welfare, etc. But, in spite of much commendable progress, we have still a great deal to do before we shall have an adequate system of education for the home, either in respect to the value and range of the offerings or the percentage of people caught by them.¹

Illustrate specifically what kinds of training should be given for making home management contribute maximally to the conservation of economic goods and health and to the promotion of happiness.

(d) We need an educational policy and facilities that will *fit physically defective persons for economic productivity*. It is quite feasible to make the blind, the deaf, and the crippled economically self-supporting by the right sort of training. There is no reason why they should constitute a load for society to carry. We have recently seen what miracles could be performed by the re-education of crippled soldiers, and the same thing had been evidenced on a small scale and with individual cases long before. But, in spite of the demonstrated possibilities, a large percentage of the defectives are as yet economic parasites. Out of about 120,000 blind in the United States we have in school only 5,600, while the normal attendance would be five times that many. Out of 200,000 deaf we have less than 15,000 in special schools. Some provision is being made for the education of crippled children² but only a small part of the whole number is reached. Besides, the range of vocations in which opportunities for them are provided is much too restricted, consisting chiefly of some type of weaving, when it might well include editorial work, typesetting, statistical work, and many other additional kinds of employment.

(e) *We need to develop much further our present feeble efforts to place individuals* in those fields of work for which they are best fitted by nature—educational and vocational guidance.

¹ See Lapp and Mote, chapter VIII.

² See United States Bureau of Education Bulletin, 1918, No. 10.

Both from the standpoint of the individual and from that of the state it is wasteful to allow men and women to flounder in work for which they are ill adapted when there are other vocations in which they could be more productive and better satisfied.¹

3. We must develop a system of education that can help *conserve and promote the fundamental essence of democracy.*² Democracy as a form of government is probably in no danger of extinction. Its steady growth and spread during the last hundred and fifty years is evidence that it is, on the whole, the "fittest" form of government, and social evolution unassisted by telic efforts will itself conserve and probably universalize it. But if we are to realize in early generations the fullest florescence of democracy, we need to analyze out the elements that constitute its essence and deliberately work these as traits into the oncoming generation—we need, that is, to take time by the forelock and do, by the artificial and hastening process of conscious education, what the blind processes of nature have been doing very slowly during the past several centuries. Among the elements of democracy that seem particularly in need of reinforcement by education are the following:

(a) Willingness to acquiesce in the will of the majority, except for efforts peaceably to convince opponents. In certain countries on the road to democracy we are just now witnessing some notorious cases of attempted domination of minorities over majorities, and even in our own country we are by no means free from evidences of the same spirit.

Illustrate from politics, church conferences, small group meetings.

(b) Readiness on the part of each to accept his full share of the burdens of organized social life—taxes, unpaid govern-

¹ See chapter VII.

² There are some excellent chapters bearing upon this in Neumann, *Education for Moral Growth*. See especially chapters II, III and IV.

mental services, inhibitions in private life on a give-and-take basis.

Illustrate. Show how the disposition mentioned is an element of democracy.

(c) Mutual respect between all individuals regardless of the accidents of birth, wealth or occupation—to replace the snobbishness we still have with us. A fundamental tenet of democracy is the inherent dignity and worth of each individual of the group, and the spirit of democracy is lacking just in so far as persons in one social status are looked down upon by persons in another—except where the former are justly condemned on account of anti-social acts.

How far do we fall behind the claims of ideal democracy in this respect?

(d) Mutual recognition of rights on the part of the sub-groups that make up democratic society. We shall always have, and doubtless should have,¹ compact groups within larger groups—cliques, gangs, fraternities, alumni of particular schools, villages, states, labor unions, consumers' associations, families,—and there will always be the temptation to support the interests of the small group of which one is a part at the expense of the larger group, or at the expense of other constituent small groups. But the spirit of democracy demands that the same sort of inhibitions, mutual respect, and mutual aid be accorded one group by another as are expected of one individual in relation to another within any homogeneous group. Individuals will naturally fall into groups, rather than mingle in a single homogeneous society, and to that extent democracy must be expected to be abridged, but the external adjustments between these several groups might well be on a basis of mutual recognition of worth. This principle should not only apply to the sort of constituent

¹ See Royce, *Philosophy of Loyalty*, pages 245-8.

groups mentioned above but also to the relation of races to each other and of nations to each other in a world democracy.

Illustrate deficiencies and possibilities in this respect.

(e) Ready access on the part of all to the common conventionalities of social life. People will not mingle much with each other so long as they play different games, use different words and grammatical forms, and know only different things. Until the "lower classes" can use the etiquette of the "upper classes," speak the vernacular in the same way as the "high-brows," and find themselves able to talk about music, art, current events, and items of history with as broad acquaintance and as much assurance as the élite, there is little chance that the two extremes will mingle in truly democratic fashion. To put all these on common ground is the function of education.

Is this an impossible undertaking? How accomplish it?

(f) A fundamentally democratic temperament. Democracy is not merely a mechanical arrangement by which questions are decided by majority vote, the minority acquiescing in the decision. It is a point of view, an attitude of mind, a compelling group ethos. It does not merely occur to some imaginative citizen as a device. It is the product of the common struggles of an interacting and co-operating people. The common struggles socialize men in a certain manner; make them realize each other's worth; cause them to resent trespass on the rights of persons with whom they have learned to sympathize; accustom them to adjusting themselves to each other in a give-and-take spirit; produce in them the collective will to mutual defense. These adjustments have crystallized into a number of ideals, convictions, biases, taboos, loyalties. It is this ethos of the democratic group that is primary, and democratic institutions must spring secondarily out of it if they are to be really successful. Education for

democracy must be so conceived and executed as to nurture in the oncoming members of society these fundamental democratic attitudes.

Can biases, taboos, and attitudes be taught, or must they be automatically caught? In either case, how?

(g) Courage to face the truth and to apply it fearlessly to the control of institutions. This involves freedom of speech and the readiness to change present customs and institutions when new insight into truth demands it.

What are the advantages and the dangers of suppressing free speech in a democracy? What is the importance of moving cautiously in respect to modifying fundamental institutions? What are the proper limits of caution in this respect? Are we ever too cautious? Illustrate. What could the school do to give proper perspective in this matter?

Lack of Democracy in the Past.—But when we indict the present for lack of democracy we are doing so over against an ideally democratic situation. Perhaps we should credit ourselves with democratic aspirations, and congratulate ourselves on the tremendous headway we have made, rather than censure ourselves for having reached less than perfect attainment. We are at least thoroughly aroused to the problem, are assiduously devoted to the ideal of democracy, and are consciously striving toward its complete realization. In the past even that aspiration was largely lacking. In the early days of our national life our country was democratic in little more than name. The European class distinctions had been transported and, while by no means so pronounced as beyond the sea, they were still a potent factor in keeping up aristocracy. There was originally no intention to have the rank and file of voters pass upon governmental policies, particularly such details as they now determine. Instead it was the intention to have them elect *men* who in turn should decide matters of state. Even the voters who exercised these limited powers included only a fraction of the whole adult population. There

were still marked social distinctions between master and slave, gentlemen and commoner, rich and poor, clergy and laity, educated and uneducated. The goods of life were not passed around evenly, and, what is more, there was no particular concern that they should be.

In spite of theory to the contrary, certain classes of people now get less lenient treatment from the courts, and before the bar of public opinion, than others. Is this more or less true than formerly? Consider the case of: negroes, Indians, women, the poor, mental and physical defectives, unmarried mothers. Does the laborer have a more or less favorable economic status now than formerly?

Increase in Universality of Education.—The privileges of education were very narrowly restricted in our early history. Although great sacrifices were made on the part of parents, clergymen, and teachers, to give a chance to the "boy of parts"—though it must be confessed that even he had pretty poor facilities—the rank and file of people had extremely meager opportunities. Throughout the eighteenth century only one woman in four could write her name, and as late as 1830 one-fourth of the men were obliged to make a cross for their signatures on their marriage certificates. In 1800 the average number of days' schooling for all persons was only 82; by 1840 it had risen to 208; by 1860 to 434; by 1880 to 792; by 1900 to 1046; and by 1915 to 1264. There was very little *free* secondary education at the beginning of our national history, though some of the old grammar schools, especially in New England, were still functioning. There were, however, in the early years of our national period, a considerable number of academies where tuition was not high. In 1821 the free high school movement began. By 1840 there were some twenty-four such schools in the country; by 1860 there were 321; and by 1870 the number had risen to some 1650.¹

¹ These figures are based on Dr. Harris's report as U. S. Commissioner of Education, 1904, pages 1782-1989. They are only approximately correct, for many schools reporting did not give the date of founding while many others evidently gave the date at which a private school was founded which was later taken over as a public school.

From that time on the increase in number of public high schools, and in attendance at secondary schools, increased by leaps and bounds, as the following table shows:

ENROLLMENT IN SECONDARY SCHOOLS SINCE 1870

	PUBLIC HIGH SCHOOLS	PRIVATE HIGH SCHOOLS AND ACADEMIES
1870.....	80,227
1880.....	110,277
1885.....	160,137
1890.....	202,963	94,931
1895.....	350,099	118,347
1900.....	519,251	110,797
1905.....	679,702	107,205
1910.....	915,061	117,400
1915.....	1,328,984	155,044
1920.....	1,857,155 ¹	184,153 ²

"The growth of public high schools has been phenomenal. In 1900 only 0.68 per cent of the total population were enrolled in the public high schools of the country, while in 1920, or 20 years later, 1.76 per cent were enrolled. In 1900 only 3.3 per cent of the children enrolled in the elementary and high school grades were in high school, while 10.2 per cent were enrolled in 1920. If data for the year 1922 were available they would probably show 12 or 13 per cent enrolled in high school, since the high school enrollment has increased greatly within the past two years. . . .

"Even with the increase in enrollment in both public and private high schools, there is still an army of 1,967,651 boys and girls from 14 to 17 years of age, inclusive, who were not in school. If these boys and girls could be brought into school about 65,000 additional classrooms would be necessary, counting 30 to a class; and about 4,000 additional high schools of 500 pupils each would be required."³

¹ Not including seventh and eighth grades of junior high schools. This table is taken from the Biennial Survey of the U. S. Bureau of Education, 1918-1920, page 45.

² From U. S. Bureau of Education Bulletin, 1922, No. 9, page 1.

³ Deffenbaugh, *Secondary Education in 1921 and 1922*, United States Bureau of Education Bulletin, 1923, No. 12, page 2.

College attendance, too, was extremely small in our early days. During the first half century of its existence, Harvard had never more than twenty students, yet it was the only college in the country. By 1800 there were not more than one or two thousand students in all our colleges combined. By 1875 that had risen to a little more than twenty-five thousand. Since that time there has been a rapid increase in attendance, as follows:

ATTENDANCE AT COLLEGES SINCE 1875

1875.....	26,253
1885.....	41,848
1895.....	91,992
1905.....	137,723
1915.....	237,168
1920.....	356,694

Broadening of Course.—Not only has the percentage of people attending school increased many-fold since the origin of our nation, but the curriculum also has been immensely broadened. Originally in our country, as elsewhere, the dominating motive for providing education was religious, and the higher schools were chiefly for the clergy, though in America many persons also went from academy or college into the reading of law. In consequence of the religious purpose and the humanistic traditions still persisting, the offerings were extremely limited—the college course consisting mostly of Latin, Greek, Hebrew, and philosophy, while the secondary schools offered little besides Latin and Greek. When the academies were introduced, about the time of the Revolutionary War or a little earlier, they offered many practical studies, as science, surveying, modern languages, English, moral philosophy, oratory, algebra, geography, astronomy, etc. When high schools were founded they offered courses much like those of the academies. But there was always a tendency, on the part of secondary schools, to swing back toward the old, narrow curriculum of the original Latin grammar school; so that before the end of the nineteenth cen-

ture, our secondary schools, public and private, were again, as a class, institutions of aristocratic traditions and adapted chiefly to the education of preachers. But, since the opening of the twentieth century, there has been going forward an amazing enrichment of the school program, particularly that of the secondary school.

Liberalizing Influence of Public Demands.—It has been generally esoteric forces that have pulled schools back continually toward ancient and "respectable" standards. Public demands—as voiced or even explicitly felt, however, by spokesmen interested in the welfare of the people rather than by the public itself—have always tugged at them in the opposite direction. A few persons not aiming to enter the higher professions have at all times sought to avail themselves of the privileges offered by established schools. These generally exerted pressure for the omission from their programs of studies useful only to preachers and for the inclusion of material pertinent to the needs of themselves as "externs." Certain concessions were often granted to these outsiders and the course was somewhat liberalized in consequence. But, fortified by the doctrine of formal discipline as the end of education, schoolmen yielded, until lately, little from the traditional curriculum, attempting instead to convince all classes that their offerings were best for everyone no matter what his contemplated occupation. But common sense, demonstrative experience, and a revision of educational theory have made that position no longer tenable. The masses, once docile, have come to assert their rights. They first entered the school in small numbers with such curricula as they found. Once in, they pressed for changes in the program to meet their needs, and realized some of these demands. The resultant better curriculum attracted more of them, and these, too, exerted pressure for still further modification of the school. This dual process has progressed until the high schools no longer are institutions adapted only to the leisure classes, or to the clergy—they have become schools for the

masses; and the same movement is now making rapid headway in the colleges. The elementary schools have always been closer to the needs of the public than the schools above and have experienced less change in character, though even in them there has been no slight modification in the interest of relevancy to the needs of life. Not only have new courses been established in the "people's college" (the public high school) to meet the demands of present-day life but subject-matter formerly regarded as belonging exclusively to the higher institutions has percolated down to the secondary, and even to the elementary, schools—such subject-matter as that of economics, sociology, political science, psychology, agriculture, calculus, music and art appreciation, and biology.¹

The Modern High School.—The school system that is necessary to meet these demands of an awakened people—not irrational whims of a clamorous rabble but the minimum obligations of democracy—is one of almost incomprehensible extensity and complexity. Already in 1912 Professor Johnston enumerated a startlingly long and varied list of offerings the new day had called forth:

"Variety of Existing Educational Institutions and Activities.—The extension of university privileges at all times to teachers of both sexes at the University of London, Harvard, Pennsylvania, Cincinnati, etc., the National University (suggested), numerous new institutions for research, evening Y. M. C. A. universities, international congresses, national exchanges of professors and middle school teachers, parents' co-operative associations, an international academy as an authority on language reform (suggested), exclusive Catholic and Jewish schools, national and State schools for grown immigrants, schools for health instruction of soldiers (England), State schools for veterinary surgery (suggested), Farmers' Experimental College on Wheels (Booker Washington), army cooking schools, special schools for ophthalmology, otology,

¹ On the extension of education downward to the lower classes see Smith, *Introduction to Educational Sociology*, chapter X. See also the little book by W. D. Lewis, *Democracy's High School*.

rhinology, laryngology, etc. (suggested in lieu of recent organized agitation for adequate medical supervision of school children), constitute an arbitrary choice from our long list. Extending further the connotation of education, and enormously increasing our perplexity, we may note many less comprehensive phases, some genuine, some abortive, all characteristic of our age and exigencies of our growth. We note, further, schools for religious pedagogy, schools for deaconesses, the great evening trade-schools of Boston, New York, Chicago, and Philadelphia, Southern industrial schools for negroes, evening high schools, agricultural high schools, high schools of commerce, manual training schools, Lyman and other city reform schools, the George Junior Republic, the Rand and other schools of social science, schools for socialism, breadwinners' colleges, home schools for Jewish girls, truant schools for girls, schools for incorrigible boys, schools for crippled and deformed children, schools for old people, schools for training in prevalent ailments of low humanity (Washington Booth's suggestion), the Department of Humanity in Columbia University, and even schools for anarchy. And if this be not enough, our list runs on freely with various struggling attempts at vocational schools for journalists, for librarians, for salesmen and saleswomen, for judges (Paris), for cash-boys, for nurse-maids (London), for policemen (Russia), for grave-diggers (Belgium), for housewifery (England), for prospective wives and husbands (suggested), for washerwomen, and even for chimney-sweeps (Prussia), for croupiers (Monte Carlo), and for aëronauts (Boston). By continuing such a survey we may get an appalling picture of actuality, a semi-civilized situation replete with suggestions, whose ultimate resumé will be impossible until philosophy is as broad as life, and until educational endeavors can more successfully cope with genuine social imperfections.

"Of the problems pressing upon schoolmen in actual service, the one of industrial training is typical and urgent. The list of the vocational schools in the city of Munich will sufficiently emphasize the probable complexity of our educational future in this respect. This one city assumes responsibility for its citizens by directing forty-two vocational

schools with organized courses of study bearing upon the trades in question. These are schools for butchers, bakers, shoemakers, barbers, wood turners, glaziers, gardeners, confectioners, wagon makers, blacksmiths, tailors, photographers, interior decorators, hotel and restaurant waiters, coachmen, painters, book binders, paper hangers, potters and stove-setters, watch-makers, clock-makers, jewelers, and silver-smiths, founders, pewterers, coppersmiths, stucco workers and marble workers, wood carvers, coopers, saddlers and leather workers, business apprentices, printers and type-setters, lithographers and engravers, building iron and ornamental iron workers, machine makers, mechanics, cabinetmakers, masons and stone cutters, and carpenters. All these courses of study were forced into existence in this city between the years 1900 and 1905.

"A supplementary list of novel ideas as regards the course of study are the following: A course in the humane treatment of animals required by law in Illinois, School of Peace (Boston), consular schools of commerce and administration (Chicago), Cantonal Commercial School (Zurich), schools for railroad men with elaborate curriculum (P. R. R., etc.), schools for mine workers (Lost Creek), Department of Life-Saving (Columbia University), Department of Horsemanship (Norwich University), schools for real estate dealers (Y. M. C. A. University, Boston), European hotel schools, School for Household Arts (Barnard), Wifehood Guild (Long Island), travelling cooking schools (Germany), schools for 'Intellectual Élite' (this principle is in operation in one large city), Bureau of Hygiene (to teach mothers infantile diseases, etc.), schools for 'wet' voters in St. Louis to instruct in use of ballot, the Caroline Rest for mothers (course in the care of babies, Chicago), elective course in the care of babies (Missouri), schools for tubercular children, cigar schools (Belgium), schools for coast defence (Virginia), school hygiene clinics for the study of typical ailments of school children (Scotland), trade hygienic institutes for workmen in typical ailments of occupations (Germany), schools for deportment, telephone sweet-voice schools (Los Angeles), courses in railroad problems (University of Illinois—proposed), City Fire

College (New York), high school course in 'Civic and Industrial Chicago' (Chicago), schools for waiters (three in London), School for Women Police (Kansas City), and School for Municipal Administration (Columbia University—proposed).

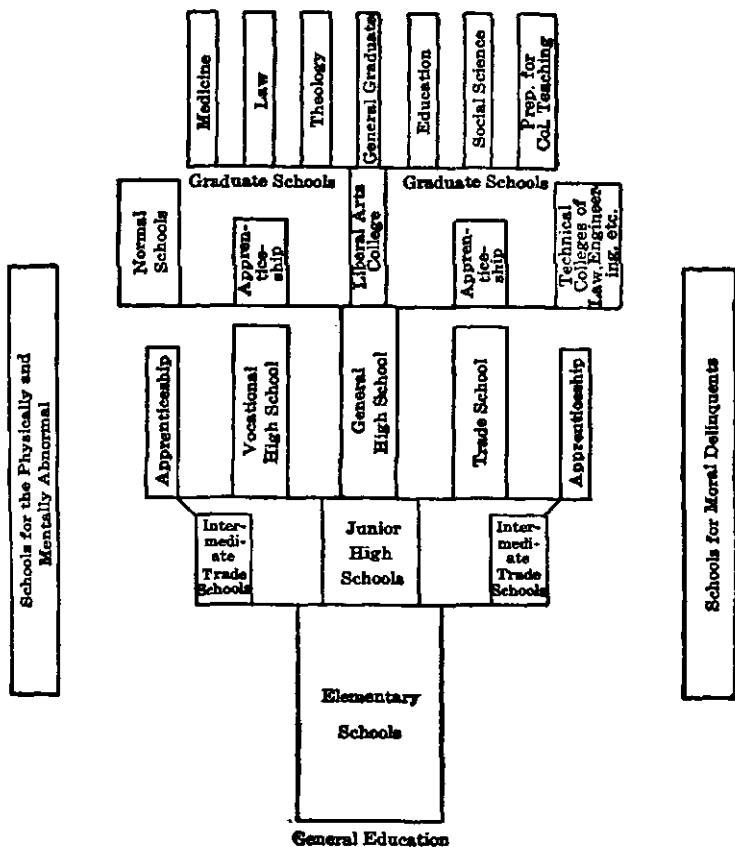
"This list is suggestive, but not complete. We have ninety-seven distinctive fields into which educators are driven by the public to enter. One hundred and thirty-seven courses are mostly concerned with processes which we have not heretofore thought of as educational. It all seems to mean that we have rapidly democratized education. It seems to mean that wherever the torch-light of education does not yet shine, we are going to hear the "voice in the wilderness crying."¹

Out of our experience with a wide range of "vestibule schools" for preparing individuals quickly for important new war duties and because of the development of wireless telegraphy and telephony as well as a number of new industries during the war and since, this list of Professor Johnston's would now need to be considerably lengthened to sample all. And this process of enriching education by adding offerings is not yet by any means at an end. It must and will go on until there will be available optimum training in preparation for any social relationship in which one may wish to enter, if this relationship is of such a character that systematic training would shorten to any extent the period of initial fumbling. And not only will these offerings be accessible here and there, often being regarded as curiosities because of their rarity as they now are, but they will be readily accessible by approximately all persons who could profit by them.

General and Specialized Education in a Democratic System.—All children should be encouraged to remain in schools of general culture, provided it is really a functioning culture, as long as possible and yet save time enough for vocational preparation, but no one should be turned out of the schools

¹ Johnston, *High School Education*, pages 7-11. Quoted by permission of Charles Scribner's Sons.

without being fitted to take masterful hold of one of the real handles of life, however plain or however embellished that



DIAGRAMMATIC REPRESENTATION OF A DEMOCRATIC SCHOOL SYSTEM

handle. That will mean that there must be, in our educational system, a central trunk of general education from which specialized branches lead off at many levels. A thoroughly democratic system might, thus, be illustrated in the preceding diagram.

Is it, or is it not, an implication of democracy that the street-sweeper and the shoe-cobbler should have the use of the machinery of the schools for his work, so far as he can profit by it, as uniformly and as generously as that machinery is put at the disposal of the lawyer or the preacher?

Democracy in the Control of Education.—Up to this point our discussion of democracy in education has turned on the fundamental principle of the greatest good for the greatest number, with its implication of the rule of the majority and of equality of claim to the goods of life on the part of all. But there is at least one other basic element of democracy which has a bearing upon educational policy: the principle that, in a democracy, the members themselves must decide what is their "greatest good." Autonomy of control is as fundamental to democracy as equality of individuals, perhaps even more so. Politically that involves that the citizens elect their own officers and fix their duties and salaries and that they, either directly or indirectly, make and enforce the laws that govern themselves. Industrially it means that workers choose their superiors, determine their hours and conditions of labor and fix, or at least consent to, their own wages. Educationally this principle has three major implications:

1. *That the public should govern educational policies.* Any effort on the part of schoolmen to run the schools high-handedly is doomed to failure sooner or later. The people may tolerate it for a while but ultimately they will assert their right to control. Responsibility to constituents is an inescapable principle in our form of government and schoolmen cannot evade it any more than can other officers. The remedy for the evils so often manifested in control of an expert function like education by laymen who do not fully comprehend its problems, is not to draw away from the public and try to conduct the schools dictatorily, but instead to take the public into confidence and to explain to them fully and convincingly the needs of the schools and the proposed policies for meeting these needs. This may be done by good yearly reports to the

school board and through them to the public, by newspaper publicity, by addresses before parent-teachers' associations and chambers of commerce, and by private talks with citizens. The ability to educate the public to their ideals is no mean ability on the part of schoolmen—in fact an indispensable ability in the long run.¹

School boards often control directly too many details. How is the above principle related to that? It is often claimed that the school board is ideally a sort of "go-between" for the public on the one hand and the superintendent on the other. Show how that arrangement should function.

2. *That the teaching staff be asked to participate in the formulation of school policies.* For a decade or more there has everywhere been going on a movement to admit principals and teachers to a voice in the determination of such school policies as the making of a curriculum, methods of discipline, methods of teaching, professional study, and the construction of salary schedules. Policies will be better understood and better carried out, and indeed will ordinarily be in themselves better balanced, if the rank and file of teachers, or representatives of them, participate in their making. Besides, such participation, by placing responsibilities upon teachers, raises them above the level of automatic machines. Democracy within the management of a school system promises rewards comparable, in its own sphere, with those political democracy has brought to the state as a whole.

But will a democratically controlled school system be as progressive as one autocratically directed by the superintendent? Does democracy generally favor progress and efficiency? Could the loyalty and solidarity of the teaching force be as well maintained? Would lack of centralization of authority permit escape of individuals from responsibility as it does in political life? What are the necessary limits to democratic control in educational administration?

¹ See the book by Carter Alexander and W. W. Theisen on *Publicity Campaigns for Better School Support*, published by the World Book Company.

3. *That pupils be allowed to participate in control.* Of course that proposal sounds grossly Bolshevistic; but it has proved successful in many a place in the form of school city or advisory council. No one who has not tried these, under favorable conditions, can realize how seriously school children take governmental responsibilities or how faithfully they carry them out. They are likely after a while to prefer to get out from under the system, and put it back on the teachers, but while they carry the responsibility they have shown themselves fully as just and efficient in meeting it as teachers are, often more so. Of course no one can succeed with pupil government who is not a strong teacher, and the advantage of the régime is not that it makes discipline easier but that it trains pupils for the democratic life outside the school. It is certainly an anachronism to run, as we generally do, an autocratic school in the midst of a democratic state; since it is in the school that children are being prepared for outside life, the school should be as completely as possible a miniature of the life for which it is training.

But admitting pupils to a share in control does not in the least necessarily involve "pupil government." It involves merely the spirit of intelligent co-operation, and this is not a matter of form but of atmosphere. The democratic spirit is present wherever teachers respect the personalities and opinions of their pupils, wherever spontaneous discussion is encouraged, wherever teachers let pupils into the secret of the aims of courses and of lessons (a good pedagogical device altogether apart from considerations of democracy), wherever pupils are stimulated to run down problems and projects that challenge their curiosity or further their purposes, wherever children are made to feel needs first and where teaching is done to satisfy those needs. If we wish to make the strongest possible members for a democratic state in the next adult generation, we must begin by training them through practice in democracy while plastic pupils in school.

Or is it true rather that the way for pupils to learn later to control is first to learn blindly to obey? Will pupils educated in a democratic school make better or worse citizens in the future? How does the public take to lack of autocracy on the part of teachers as compared with the policy of "making them mind"? Do pupils always appreciate this method of management? Under what conditions can it be safely introduced into a school system?

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Make a survey to ascertain why pupils in a given area left school. Compare your results with those of other surveys. To what extent would an ideally democratic educational system have held them?
2. Draw up a plan for a school system that would have held the pupils involved in the exercise above, and decide whether the plan would be at all feasible.
3. Make a list of the occupations plied in a city, or a rural district, with which you are acquainted. Opposite each note the facilities available for training for it. To what extent are these facilities adequate?
4. From the school records study the evolution of the curriculum and of the attendance of the high schools of your city. To what extent do you discover democratization in this evolution?
5. From inquiry among associates from other cities than your own, ascertain to what extent there is a real spirit of democracy in the administration of schools in their districts; also the spirit of democracy in the handling of pupils. Compare, if possible, with conditions twenty-five years ago.

SELECTED REFERENCES FOR FURTHER READING

- BODE, BOYD H., *Fundamentals of Education*, chapter III.
(Analysis of the demands of education for democracy.)
- BRIGGS, T. H., "What Next in Secondary Education," *School Review*, Vol. XXX, pages 521-532.
(Changes needed for democratizing high schools).
- CARLTON, F. T., *Education and Industrial Efficiency*, chapter I.
(The laboring man's claim to the education he needs.)
- COMMISSION ON NATIONAL AID TO VOCATIONAL EDUCATION, *Report*, Vol. I.
- COUNTS, G. S., "The Selective Principle in American Secondary Education," *School Review*, Vol. XXIX, pages 657-67 and Vol. XXX, pages 95-109.
- CRANE, A. G., *Education for the Disabled in War and Industry*.
- ELLIS, A. P., *The Money Value of Education*, United States Bureau of Education Bulletin, 1917, No. 22.
- GILLETTE, J. M., *Vocational Education*, chapter V.

HEDGES, ANNA C., *Wage Worth of School Training*.

(An analytic study of six hundred women-workers in textile factories showing relation of wages to experience and schooling.)

JOHNSTON, NEWLON AND PICKELL, *Junior-Senior High School Administration*, chapter I.

(Education for the New Democracy.)

KILPATRICK, W. H., *Source Book in the Philosophy of Education*, chapters X and XI.

(Readings on democracy and education).

LAPP AND MOTE, *Learning to Earn*.

NEUMANN, HENRY, *Education for Moral Growth*, Part I.

(Very stimulating discussion of the attitudes that must be developed in Americans if the most is to be made of democracy.)

ROSS, E. A., *Principles of Sociology*, chapter 30.

(Chapter on "Equalization.")

SMITH, W. R., *Introduction to Educational Sociology*, chapters 9 and 10.

(On "Democracy and Education" and the "Evolution of the School.")

SNEDDEN, DAVID, *Educational Sociology*, chapter XVIII.

THORNDIKE, E. L., "Changes in the Quality of Pupils Entering the High School," *School Review*, Vol. XXX, pages 355-9.

CHAPTER VII

VOCATIONAL GUIDANCE

Social Economy in Adjusting Men to Their Jobs.—Up to this point we have been assuming that the individual will be confronted in life with a multitude of problems and we have regarded it as the function of education, formal or informal, to equip him with abilities for coping with these problems. We have insisted that both the proper claims of the individual and the needs of the state require that education prepare for the whole range of problems that life presents, that it make the individual efficient in whatever vocational or other relationships he may enter.

But when we fix our attention thus upon the demands which life makes on the resourcefulness of the individual, and determine that we shall see to it that each is equipped to meet the bumps, we are likely to overlook a means of softening the contacts. Just as there is no sense in butting against a stone wall hoping to knock a hole through it when there is a way around the wall, so there is no necessity in attempting to prepare just any person to meet just any sort of emergency. We ought to distribute our forces in such way that we can get the world's work done with the least waste of effort. We should assign each to the place he can best hold. This adjustment between men and their jobs is covered by the term *vocational guidance*.

Misfits.—The need for vocational guidance grows out of the large amount of maladjustment there is to-day in respect to the adaptation of people to their work. We are told that there are in the world round holes and three-cornered holes, and also round men and three-cornered men, but that somehow a large proportion of the round men have got into the

three-cornered holes and the three-cornered men into the round holes. The consequence is that a great many men and women are going through life with the benumbing sense that they are out of place and that they cannot do what they might if they were in some occupation for which they are better fitted.¹ Careful investigation does show that many persons have their efficiency much improved by being taken out of one job and placed in another. For example, Münsterberg says:²

"I frequently receive the assurance that whenever an industrious, energetic man is unsuccessful in one kind of work a trial is made with him in another department, and that by such shifting the right place can often be found for him. Young people to whom, in spite of long trial and the best will, it seems impossible to supply certain automatic machines, become excellent workers at much more difficult labor in the same establishment. Women who are apparently careless and inattentive when they have to distribute their attention over a number of operations do high-class work when they are engaged in a single activity; and in other cases the opposite is reported.

"I may mention a few concrete chance illustrations. In a pencil factory the women in one department have to grasp with one movement a dozen pencils, no more and no less. Some learn this at once without effort, and they earn high wages; others never can learn it in spite of repeated trials. If those who fail in this department are transferred, for instance, to the department where the gold leaf is carefully to be applied to the pencils before stamping, very often they show great fitness in spite of the extreme exactitude needed for this work. . . . It has been found that the most rapid and accurate girls at sorting are not seldom useless on the machines. They press the wrong keys and make errors in copying the totals from the machine indicators to the file cards. On the other hand some of the best machine operators are very slow

¹ For a forceful presentation of this idea, see Orison Swett Marden, *Pushing to the Front*, Chs. 9, 10, and 11. Or, for a number of quotations from these and other books, see Peters, *Human Conduct*, chapter on *Choosing a Vocation*.

² *Psychology and Industrial Efficiency*, page 118. Published by Houghton Mifflin Co.

and inaccurate at the sorting table. Girls have been found very poor at the work at which they were first set, and very successful and efficient as soon as they had been transferred from the one to the other."

See also Link, *Employment Psychology*, chapter III. Cite instances from your own experience of persons who were not successful in one type of work but who proved efficient in other kinds.

Fumbling for the Right Place: Its Cost.—Ultimately many persons find their place by trial and error. They shift from one job to another until at length they find the right one. Norman Triplett found only eighteen out of sixty-nine Emporia business men following the occupation they had entered in youth. These men had averaged three and two-tenths different occupations each, and one man had been in eight. These findings are not far from typical. The result is a shockingly wasteful turnover in labor in most industries. In 1912 Magnus Alexander made a study of this problem of labor turnover and its cost in twelve typical metal-working industries. He found that in these twelve factories 42,571 persons had been hired, to get a net increase for the year of only 6,697. After making full allowance for deaths among the old employees, illness, and other justifiable withdrawals, there remain 22,031 hirings above the apparently necessary requirements in industries that employed an aggregate of about 40,000 men on the average. Mr. Alexander's computations of the cost of these needless hirings showed that "the apparently unnecessary engagement of 22,031 employees within one year in the twelve factories under investigation involved an economic waste of \$831,000. This amount will be considerably greater and will reach \$1,000,000 if the decrease of profits due to a reduced production and the increase of the expense on account of enlarged equipment investment are taken into consideration." If the situation in these twelve metal industries is typical of others throughout the country, it is evident that the total waste in the nation on account of the trial-and-error method

of placing workers in jobs must amount to a staggering sum.

Place of the School in Guidance.—In this process of fitting men to their jobs the school has until recently taken little part. A principal once said to one of his students who was about to graduate from high school, "We have now brought you to the place where you can lay hold of the problems of life for yourself and make your trained powers count effectively for yourself and society." The youth replied, "It seems to me rather that you have towed me out into the midst of the ocean and set me adrift in a fog bank with no guide to show me in which direction to set out." Until toward the end of the first decade of the present century nothing tangible had been accomplished in this country by way of systematic vocational guidance, although something had been done abroad, and as early as 1881 a little book advocating guidance had been published in New England by a Mr. Lysander. Systematic vocational guidance was provided in America in the spring of 1908, when the Vocational Bureau was organized in Boston under the direction of Professor Parsons, out of whose enthusiasm the project had grown. Parsons died within the year, but the work was carried forward, given much publicity, and spread rapidly over the country. In 1916 there were more than a hundred and fifty high schools in this country claiming to render systematic vocational guidance service. By 1918 this number had increased to over nine hundred. We have now come, at least in theory, to regard it as an inescapable duty of every school system.

In discussing the school's part in this adjustment of men to social demands, we must distinguish between three phases which are so closely related as often to be confused:

- (1) Educational Guidance.
- (2) Vocational Guidance.
- (3) Vocational Placement.

For each of these there is a distinct and pressing need. We shall discuss them in turn:

I. EDUCATIONAL GUIDANCE

Need for Guidance.—Educational guidance involves assisting pupils to choose their courses of study wisely and with reference to some end. A generation or two ago this problem was a rather small one. Two or three parallel groups of courses might be offered between which the college or high school student could choose, but within any of these groups nearly everything was prescribed. Indeed even between the groups there was not often a great difference; a very large core of the same studies was required of all. Later we went to the opposite extreme and threw open to free election the whole of a wide range of offerings, especially in the colleges, but to some extent even in the high schools. We are now coming to see that both of these are indefensible policies. We could not go back again to the narrow prescription of the nineties. Individuals differ, both in tastes and capacities and in purposes, and we must provide a variety of offerings to meet these different types of needs. On the other hand, we cannot continue to allow immature persons to choose their educational pabulum haphazardly and on the basis of whim. As long as we held to formal discipline as the goal of education we could consistently say that one subject is as good as another, and that the student should be allowed to take his choice at random; but when we come to regard education as the acquisition of the particular fitnesses that particular individuals will need for coping with particular kinds of problems in life, then we must act on the policy that it *does* make a difference what one studies. The student in university, college, and high school is now confronted with an amazingly large and varied array of courses out of which he is asked to choose only a small number. In the college of liberal arts of a large university the number of offerings may go well above two thousand. In the institution in which the writer is teaching, which is a fairly small one, four hundred courses are offered in the college of liberal arts—ten times as many as any one student could take.

In a large high school the offerings may range from one to two hundred, of which pupils can take only from one-fifth to one-tenth. If out of this bafflingly complex array of offerings the youth is to pick those best adapted to his needs, he must have the guidance of some one with broader vision and wider experience than either he or his parents could be expected to have.

Crude Efforts at Educational Guidance.—The educational world is awake to this problem and is making some rather vigorous—or at least noisy—attempts to meet it. Various schemes for prescription of supposedly basic studies, for designating a minimum aggregate of hours within certain fields, or for compelling prescribed amounts of distribution and concentration, have been worked out, usually on the basis of majority votes in the faculty. Also there are found very generally provisions for giving the students advice on their programs from deans, heads of departments, committees, high school principals, or other “advisers.” But the guidance given by these elders is, in most cases, pathetically blind. They are almost never trained for this work. It is assumed that, because they are profound students of botany, or chemistry, or economics, or English, they are competent to pass judgment on any other important matter in the universe, this one included. As a matter of fact they have generally not studied systematically either the needs of society or educational values; the advice they give is merely empirical and is likely to be thrown into the distorted perspective of a man of the cloister. What is needed is the development of machinery for *expert* educational guidance, which will rest upon scientific studies of social needs and educational values and upon intimate acquaintance with the character of the courses regarding which advice is given and with the abilities of the pupils.

The Functioning Value of Courses as Basis for Recommendation.—In the first place, the expert educational adviser will need to base his recommendation upon what has been proved

regarding educational values and educational objectives. It is true that we are only beginning to study these matters scientifically, yet already there is enough known to compel the adviser to exclude certain things from his recommendations to certain students and to include others. The counselor should himself be an investigator, and the studies of others upon which he can draw will certainly grow into a considerable body within the near future. He will, of course, inevitably arouse some hostility on the part of those whose vested interests are threatened by his frank advice. It will be necessary that he courageously resist the pressure from partisans who feel that their courses are being slighted and he must expect vigorous opposition, both overt and covert, from such advocates as he cannot conscientiously satisfy. But the time is past when we can afford to prostitute young men and young women in the most critical years of their lives to the ambitions of professors anxious to "enlarge their departments." There will probably continue to be some educational use for practically all of the studies now offered but certain departments must expect, when people have become critical of educational values, much fewer students than they have had in the past—only the students who can be reasonably expected to profit largely from study in them.

1. The adviser must consider whether the course in question will actually *function in contributing to culture*, health, efficiency, morality, or citizenship, more largely than some other that might take its place. There is an immense number of superstitions in this respect. When he advises "Latin" for improvement of English speech, or "History" for citizenship, or "Biology" for health education, he must know much more precisely than most persons now do why he advises it. Also he must know what kind of "History" or "Latin" or "Biology" he is recommending, for some species of these serve one sort of purpose, some another, and some none at all.

2. He must also consider what studies are necessary as a *foundation for others* which are to come later. At the proper

time pupils should have the preparation they need for subsequent courses. Persons who go into physics without any algebra or geometry, or into advanced courses in American History without any background at all of General History, are sure to find themselves handicapped. But in respect to what studies *are* necessary as bases for others, and how much of each is needed, there are again many superstitions. The writer heard a college professor of biology say publicly that he could not conceive how a student could get on in biology without having had a course in physics in the high school. When pressed to show in just what way college biology must draw upon high school physics, he was able to mention only the desirability of acquaintance with the principle of osmosis. One of his colleagues was able to add a second item—a knowledge of the laws of the lever as a basis for understanding the attachment of muscles.¹ Sometime we shall be able to see that because some “algebra” is needed for physics and some “chemistry” for domestic science, “algebra” and “chemistry” as wholes and in whatever sort of units they happen to be organized are not the best and most economical preparation for the particular courses for which they are prescribed as propædeutics. We shall then organize such units as will best fulfill our purpose. Then the task of the educational adviser will have become much simpler.

3. Thirdly, he must consider what the studies under consideration are worth by way of their *direct preparation for the pupil's vocation*. Just as it is necessary for the youth to be trained for his moral, cultural, civic, domestic, and health relationships, so it is also necessary that he be trained for his vocation. There are perhaps more superstitions about what is useful as vocational training than about any other form of education. The expert adviser must base his recommendations upon the results of factual analysis of the

¹ For some surprising findings regarding the mathematics needed for Freshman chemistry see the article by Williams, “Mathematics Needed in Freshman Chemistry” in *School Science and Mathematics* for October, 1921, pages 654-65.

particular vocation in prospect and the known demands in it. He will gain nothing from crude unanalyzed traditional "faiths" regarding vocational training, such as many that are now current.

Pupils' Abilities as Bases.—But the educational adviser must think not only of the values of studies in themselves, but also of the pupil's tastes for them and his abilities to master them. If any particular thing is absolutely essential it must, of course, be mastered regardless of these considerations. The teacher must proceed with it as slowly as necessary, and the pupil must sacrifice as much time and effort as is needed for its mastery. But among alternative materials choice should be made in part on the basis of the pupil's aptitudes. Save under very exceptional circumstances, students get relatively most out of the subjects that their special abilities enable them to work most effectively. The transferred values from mathematics, the enriched experience through an insight into Latin as a great literature, the insight from the social sciences, come in large measure only to the few who find themselves able to get into the heart of these subjects. There are at least three sorts of evidence on which the educational adviser may predict, with some degree of success, a pupil's aptitudes for studies not yet entered:

1. *Teachers' Estimates.*—Dr. T. L. Kelley, in his study, *Educational Guidance*, found that the estimates of a pupil's previous teachers is a fairly reliable index of his ability to succeed in future studies. These estimates can well be utilized under some conditions, but the method is by no means the most convenient in most cases.

2. *The Pupil's Past Record.*—Dr. Kelley, in the very carefully conducted study of *Educational Guidance* mentioned above, determined the extent to which success in certain studies in the elementary school agreed with success in related ones in the first year of the high school. He found a close relation between success below and success above, so that he would

have been able to predict the degree of future success from past record with a high degree of reliability. "The net conclusion," he says, "which may be drawn from these four coefficients of correlation is, that it is possible to estimate a person's general ability in the first-year class (of the high school) from the marks he has received in the last four years of the elementary school with an accuracy represented by a coefficient of correlation of .789; and that individual idiosyncracies may be estimated, in the case of mathematics and English, with an accuracy represented by a coefficient of correlation of .515."¹ Professor Thorndike also studied the permanence of interests and abilities from the lower to the higher schools. He found a remarkable persistence of early abilities and interests, so that future success might well have been predicted by them. He got an average coefficient of correlation of .91 between abilities and interests and a coefficient of .60 between interests in the last year of the elementary school and capacity in college. Later investigators have got considerably lower correlations, but still high enough to justify prediction of later special interests and abilities on the basis of a knowledge of earlier ones.

3. *Prognostic Tests.*—Dr. Kelley devised tests for predicting success in future study in English, history and mathematics and measured the relation between standing in them and actual standing in the future studies. He found significant agreement, so that he concluded future abilities could be predicted on the basis of tests. But the best study of the possibility of prognosis based on tests is that made by Dr. Agnes K. Rogers, *Tests of Mathematical Ability and their Prognostic Value*. She devised a number of tests and computed correlations between their results and actual success in later studies. From the whole number she then selected six tests that had the greatest prognostic value. She concludes, "an hour and a half spent on the tests may be ex-

¹ Perfect agreement would be indicated by a coefficient of correlation of 1.00; a coefficient above .40 indicates considerable agreement, and one above .70 is high.

pected to give a correlation of from .60 to .80 with future mathematical achievement. By means of these half dozen tests we are able to grade a group of pupils in an order of ability in mathematics and to classify them." These tests of Miss Rogers's are typical of many others that should be developed in the future. There is no reason why we should not soon be able to predict success or failure in all studies from which there is now a large percentage of failure, and steer out of those courses the pupils who are in any way likely to fail in them.

Why is it wasteful to have pupils attempt courses in which they are not likely to succeed?

The Time for Entering Vocation and Expectation of Continuation-School Training.—When the youth may be expected to enter upon his vocation, and the sort of educational opportunities he will have thereafter, will also need to receive important consideration. Distinctly vocational training should probably be postponed as long as possible and then entered upon very intensively¹ though prevocational work, intended to help the pupil find himself and to motivate his general education, should be begun rather early—probably by the age of twelve. But vocational training should not be postponed so long that the pupil will be obliged to miss it altogether, or unduly curtail it. The counselor must, therefore, be acquainted with the economic conditions of the family and with the outlook of parents and child, so that he may know how to advise the latter in such way that his education will be properly balanced and distributed with respect to general and vocational elements. The comments made on this matter, and the diagram given, in our chapter on "Democracy and Education" are pertinent here. Also the counselor must be governed by what may be expected from continuation-school education. If the pupil is assured the

¹ See Snedden, *Educational Readjustment*, pages 189-201.

training in hygiene, in citizenship, in applied mathematics, and in the theories fundamental to shop practice that some part-time schools offer, these elements may be safely omitted from, or abridged in, the general schooling. Otherwise a place must be made for them before the child is due to leave the regular school. If there should be developed the elaborate system of up-grading schools urged in our next chapter, their availability would, it is evident, profoundly influence the advice which the counselor would give as to the make-up of one's regular school course.

II. VOCATIONAL GUIDANCE

Misconception Regarding Vocational Guidance.—There are some misconceptions regarding vocational guidance that it will be worthwhile to mention briefly:

1. Vocational guidance does not exhaust itself in an effort to shunt school children out of school and into work. It is just as likely to spend its energy in trying to keep the pupil in school and to direct him in the type of schooling that will fit him maximally for the chosen work when he finally takes it up. As a matter of fact, intelligent vocational guidance will almost certainly increase the average tenure of children in school, instead of shortening it.

2. Vocational guidance does not function exclusively with reference to the manual arts, as is sometimes apparently assumed. It functions just as much with reference to the so-called "higher professions." If it encourages relatively fewer persons to seek the vocations of engineering, medicine, and law and relatively more to enter the better manual pursuits, that will be true merely because many who ignorantly aspire to the traditionally respectable vocations give promise of only very poor success in them, but good success in those with less strenuous demands on abstract intelligence; and also because the older professions are very much crowded.

3. It is not the function of vocational guidance to keep juvenile workers out of "blind alley" jobs in their early work-

ing years (ages 12 to 14 or 16). Blind-alley jobs are practically inevitable for children of those ages. There are very few jobs at which boys or girls of twelve to sixteen can work that are of such character that one can advance through them by continuous stages to a status of great responsibility and opportunity. Ordinarily one must shift, at maturity, from a juvenile job to one open at the top. But, though vocational guidance cannot prevent a youth who must begin work at 14 from taking a blind-alley job, it can and should see to it that he does not remain in such unpromising position beyond his early years, but should at the proper time help him to get oriented in a regular vocation.

Name some blind-alley jobs. Cite cases in your acquaintance of *men* working at what are essentially juvenile jobs.

Meaning of Vocational Guidance.—Thus vocational guidance seeks to orient those who are to go to work toward the jobs for which they are best adapted—temporarily for juvenile workers and permanently as they reach the necessary age and maturity. Vocational guidance has to do with the selection of a life career, and may function long before a person is ready to go to work, immediately before, or through a long period of time—becoming progressively more definite as the period for beginning work approaches. When the vocation has been chosen, the guidance becomes educational for one in school—the youth's training being directed toward efficiency in his chosen work and, collaterally, in other life relationships.

Social Survey as Basis for Recommendation.—Vocational guidance must rest upon the study of two factors: the characteristics of the person to be guided, and the social demands. We cannot afford to fit workers for society except in the light of a knowledge of what kinds of workers society is demanding and in what numbers. Mr. Davis found that 30 per cent of his high school boys were aspiring to be engineers, while industry demands only about one-half of one per cent of the

high school population for that sort of work. Brewer reports that only 1,500 students in Boston are training for industrial careers but 5,000 are preparing for commercial careers, in spite of the fact that the opportunities in the former field are twice as numerous as in the latter. In the college in which I teach, one-fourth of the students are taking Spanish, a large proportion expecting either to teach it or to use it as correspondence secretary for some firm doing business with South America. If all colleges would draw the same proportion into Spanish, certainly the supply of teachers of Spanish and of correspondence secretaries would far exceed the demand. Not only in these three respects but very generally, we are following the same procedure. We are acting on the blind faith that, if we merely produce people with the kind of training which our facilities make possible and their tastes make attractive, the work-a-day world will be ready to absorb them all advantageously. Surely this is starting at the wrong end. We ought first to go out and make a survey to learn what workers are demanded and what specific kinds of abilities are needed by them. Then we ought to seek out the people who can best take on these several kinds of abilities in the numbers demanded and train them for their respective places. Certainly cognizance of the demands should be taken first, and workers trained afterwards, if we are not to furnish an inordinate supply of some kinds and a dearth of others, to the disappointment of both individuals and society.

In our survey we shall need to ask two things: (1) What does industry want? and (2) What has it to offer? Under the first head we shall wish to know the number of people demanded each year, which demand we are called upon to supply, and the specifications according to which they are to be equipped. Under the second head we shall wish to know what remuneration is offered, what are the opportunities for advancement, what are the hours of labor, the hygienic conditions under which the employee works, the regularity and general availability of employment, the hazards, the attractive

and unattractive features, etc. An excellent example of this sort of survey is given by Leonard P. Ayres in the United States Bureau of Education Bulletin number 14, 1914, pages 27-30.

Study of the Individual.—But we cannot take account merely of the demands of society. There are many jobs (some 10,000 different kinds) and many workers, so that we can pick for each type of work the type of individual best fitted for it. This study of individuals from the standpoint of their fitness for certain kinds of work has been the most spectacular phase of vocational guidance. Many different methods of estimating the abilities of future workers have been attempted.

1. *Opinion of Parents, Friends and Teachers.*—This is the oldest method—one as old as option in vocations. The opinion of those who know the individual well is worth something as an index of his fitness for a vocation, and worth the more to the extent to which the person giving the opinion is informed about the character of vocations and is able to take an impersonal view of the individual under study. But the estimate made by friends, and especially by parents, is generally too optimistic, and too much distorted by *wishes* instead of impartial judgments, to be entirely trustworthy.¹

Give illustrations from your own acquaintance of cases where parents or friends urged persons into vocations for which they were not fitted.

2. *Personal Questionnaire Interpreted by Expert.*—This was used in very elaborate form by Professor Parsons.² His questionnaire covers, as printed in his book, seventeen large pages. It includes some questions of a rather formal nature as: Where were you born and brought up? Total number in the family you were born in? Ages of father and mother? Nationality of father and mother? etc. But other questions are intimately personal as: Do you give much attention to

¹ See Peters, *Human Conduct*, page 384.

² See his *Choosing a Calling*, pages 26-44.

dress? Are your collars and cuffs Caucasian? Do you carry your chin forward or your head tilted to one side? Do you smile naturally and easily and feel the smile in your heart, or is your face ordinarily expressionless or tinged with frowns, scowls, sneers, or in any way uninviting or repellent? Put a cross beneath each word in the following list of characteristics which seems to you fairly applicable to yourself:—honest—dishonest; truthful—untruthful; candid—deceitful, etc. In general the questionnaire is intended to bring out such items of information as: ancestry, occupation, health and interests of parents; health history and habits of the individual examined; thrift habits, reading and other tastes; personal habits and mannerisms; cultural abilities; moral traits; and ambitions.

If fully and frankly filled out and ably interpreted, such a questionnaire could scarcely help giving an insight into the character of the individual that would prove very valuable to the vocational counselor. But it is incredible that such a long and intimately personal set of questions as Professor Parsons used would be feasible. Very few persons could be expected even to attempt to answer it. To translate it into bases for specific constructive advice would be, too, a task for only the expert, and even he would need to depend much upon rather uncertain inferences. Although the vocational counselor will need to find out a number of things about the social and economic status of the individual to be advised, about his previous experience, health record, and ambitions, and although the questionnaire may be needed as a means of getting some of this information, it must be used only as a basis for interpreting and supplementing other more objective findings.¹

3. *The Personal Interview.*—Professor Parsons also used this largely and describes in his book² his methods of handling it. He asked the applicant many questions, partly because he wanted the information involved in the answers but more largely because he wanted to set the person talking in order

¹ See Langfeld's article in *School and Society*, Vol. XIX, pages 8-9.

² Chapter III.

that he might observe his mannerisms. "While I am questioning the applicant about his personal health, education, reading, experience, etc., I carefully observe the shape of his head, the relative development above, before, and behind the ears, his features and expression, color, vivacity, voice, manner, poise, general air of vitality, enthusiasm, etc." Professor Parsons also sometimes applied special tests of memory, delicacy of touch, accuracy of motor co-ordination, etc. He also frequently took occasion to lecture the applicant on bad mannerisms, thrift, or other matters that seemed necessary.

Every counselor will need to supplement his other data with personal interviews. Absolutely fundamental assets and liabilities appear here that a counselor who depended upon paper evidence alone would know nothing about. But one must not depend too much upon the phrenological stigmata that Professor Parsons mentions in the paragraph quoted above.

But evaluate the comment that, even if external appearances give no evidence of what is inside a person's head, they may still be a large factor in one's vocational success because employers *think* they indicate real mental characteristics.¹

Psychological Tests of General Mental Ability.—What occupation one is fitted for is determined in large measure by his degree of general intelligence—his I. Q. Professor McCall says it is not so true that there are round holes and three-cornered holes as that there are big holes and little holes, and that our troubles arise out of the fact that little men are attempting to fill big holes and big men little holes. Studies (mostly based on the measurements made in the army) show that different occupations require different intelligence levels. The following table gives a few examples of the intelligence standards for different occupations in army alpha scores:²

¹ See Shefferman's *Employment Methods*, chapter on "Picking the Right Man for the Job." Also Gowan's *The Selection and Training of Business Executives*, chapter on Phrenology and Physiognomy."

² For the long list from which these samples are taken see the article by Douglas Fryer, "Occupation-Intelligence Standards" in *School and Society* for September 2, 1922, pp. 273-277.

AVERAGE SCORE	SCORE RANGE	OCCUPATION
161	110-183	Engineer
152	124-185	Clergyman
122	97-148	Public School Teacher
111	99-163	Y. M. C. A. Secretary
103	73-124	Stenographer and typist
99	77-126	Nurse
86	59-107	Photographer
81	59-106	Sign-letter artist
78	61-106	Druggist
77	59-107	Factory foreman
69	46-90	Policeman & detective
66	44-88	Plumber
65	44-88	Bridge carpenter
61	40-85	Butcher
56	38-76	Cobbler
51	31-74	Boiler maker
48	21-89	Station agent
35	19-57	Shoemaker
30	16-41	Leather worker
27	17-57	Cook
22	16-46	Sheet metal worker
21	13-47	Laborer
20	15-51	Fisherman

It is not to the interest of society that an individual spend his life in a vocation that does not give full play to his abilities. On the other hand, it promotes neither the happiness of the individual nor the good of society for one to attempt an occupation demanding, as a condition for substantial success, a greater amount of intelligence than that with which nature has equipped him. Now that we have tests for general intelligence so well developed and standardized, and objective standards as to the requirements in the several vocations, it would seem inexcusable for a counselor not to take account of this factor.¹

¹For a strong defense of this point of view, see McCall, *How to Measure in Education*, chapter on "Measurement in Vocational Guidance." For a general discussion of the relation of intelligence to education see Terman, *The Intelligence of School Children*.

Is there danger of overworking this principle? See Bagley's article, "Educational Determinism and the I. Q." in *School and Society*, Volume 15, pages 373-84. To what extent can a low I. Q. be offset by other factors, particularly by effort?

Psychological Test of Special Abilities.—*Special abilities needed.*—After all due allowance has been made for the functioning of general intelligence, there can be no doubt that different vocations also demand different special abilities. Thus the telephone operator needs to be able to remember numbers with from four to six or seven digits, the inspector of gun shells needs good eyesight and quick motor reaction, the railroad engineer needs good powers of color discrimination, etc. In view of this obvious fact it is very natural that intelligent employers should analyze the job to be done by the workers they are seeking, make out specifications for it, and seek to test applicants for the purpose of determining whether they fulfill, or are likely to fulfill, the specifications. If they have already had training for, or experience in, the work, these tests are so constructed as to show what knowledge or skill they possess in the craft. Tests for this purpose are called "Trade Tests," and a number of them have been developed and put to effective use.¹ Very great and very valuable use was made of them in sifting out trained men for the occupations requiring trade-skill in the army. If the applicant has not had training or experience, the questions become then "How easily can he take on training?" "What degree of efficiency can ultimately be expected of him?" To reveal this, a different type of test from the "Trade Tests" must be devised.

Tests for Special Capacities.—It is this test of special capacities upon which vocational guidance must depend, since a vocation must be recommended to the individual in advance of training for it. Such tests have been undertaken by psychologists with considerable success. Some fifteen years

¹ See Chapman, *Trade Tests*, also Link, *Employment Psychology*, Part II.

ago Professor Münsterberg was studying this problem extensively. As the result of six tests, three group and three individual, he was able to foretell with a high degree of accuracy what girls would succeed as telephone operators and what ones would not. Also he was able to select trolley-car motormen, marine workers, and some other types of workmen on the basis of psychological tests. Similarly, Mr. S. E. Thompson, by the use of reaction-time tests, selected girls for the work of inspecting for flaws the steel balls used in ball-bearings. On the basis of the tests, he eliminated those who showed a long time between stimulus and reaction. The result was that thirty-five girls did the work formerly done by one hundred and twenty; the accuracy of the work was increased by 66%; the wages of the girls were doubled; the working day decreased from 10½ hours to 8½ hours; and the profit of the factory was increased. Lough, with his test for beginning students in stenography and typewriting; Ricker, with his test for chauffeurs; Seashore, with his test for capacity for training in music; and many others, have had more or less success with this method of predicting attainment. As a general thing these efforts have started with an analysis of the job to be done and the resolution of its demands into required mental and physical traits; then tests have been devised to measure the extent to which the individual possesses these needed capacities.

Link's tests.—As a concrete illustration we shall cite a case from one of the latest and best of these investigators—Dr. Henry C. Link (*see* References). He wished to devise a test by which it could be determined what applicants for the job of inspecting gun shells would likely be most successful in the work. An analysis of the job showed that it required:

- (a) Good eyesight.
- (b) Keen visual discrimination.
- (c) Quick reaction.
- (d) Accuracy of movement.
- (e) Steadiness of attention.

To measure the extent to which candidates possessed these traits he used eight tests as follows:

- (a) An eyesight test by the use of Lowell chart.
- (b) A card-sorting test.
- (c) The Woodworth-Wells cancellation test (crossing-out sevens).
- (d) The Woodworth-Wells easy-direction test.
- (e) The Woodworth-Wells number-checking test.
- (f) A tapping test.
- (g) The Whipple accuracy test (insert pencil in hole).
- (h) Whipple's steadiness test (pass pointer between bars).

The tests were given to groups of actual workers and their significance studied by the size of the correlation between success in them and productivity in the factory. Then the tests were given to applicants, but pressing need for help compelled the factory to take all, regardless of standing in the tests. From comparison of the records of the girls after they were launched into work, Mr. Link concludes as follows:

"Of all the girls who had been hired as inspectors, those who survived as successful inspectors were the girls who had been above the standard set in the test. To be specific, thirty-seven out of the forty-three were producing from fifty to seventy pounds an hour, and of this number all but two had been chosen on the basis of the test. Six were producing less than fifty pounds an hour, and were therefore failures judged by the standards of the shop, and everyone of these six was decidedly below the standard set by the test and would not have been hired if the results of the examination had been observed. In other words, out of the group of thirty-nine successful inspectors, all engaged on the same kind of work for a fair period of time, ninety-four per cent were above the standard set by the psychological examination."

In another test, to foretell who would be successful as clerks, Mr. Link found that the longer the applicants were tried out, the more fully were the results of the tests vindicated. Of one

hundred and eighty-eight clerks recommended on the basis of the tests, 75 per cent were called "good" by their superiors at the end of one month; but at the end of two months 89 per cent were classed as "good," and at the end of three months 92 per cent. Mr. Link also used tests to predict success for girl assemblers, men assemblers, stenographers, typists, comptometrists, machine operators, and apprentice tool operators.¹

Cautions.—The layman is tempted to over-emphasize the possibility of such tests. To an outsider the task of devising and applying them looks easy. But the experts who are working with them caution moderation in our expectations. The human machine is a very complicated organism. Many important characteristics enter into capacity for success that we have not yet learned how to measure. The road to a really feasible and trustworthy test of fitness for a complex vocation is long and devious. We must not expect a full complement of psychological tests to be developed overnight, and even when we get them, they could serve as only a part basis for counseling. Yet the successes that have been attained give reason to hope that much more can be accomplished. The field is as yet, compared with its possibilities, scarcely touched.

Read Shefferman's comment purporting to express the business man's distrust of psychological tests, put alongside of it Link's or Münsterberg's discussions, and consider whether or not Shefferman's position is due to the opposition with which practically all important *new* ideas are greeted. For a sane evaluation of the place of tests in guidance, see the article by Kitson cited in the bibliography below.

Methods of Administering Vocational Guidance.—The principal methods that have been used in administering vocational guidance are the following:

1. Providing the student *occasions for self-analysis*. This is sometimes done by having the pupils write papers on "Why I am Fitted for Such and Such Vocation," or some other type of paper that will center attention upon the demands of

¹ See his *Employment Psychology*.

certain vocations and the pupil's fitness for meeting them. This can generally best be done as a part of the work in English Composition, though it might also be attached to courses in community civics, economics, or elementary sociology. It was this method upon which Davis largely relied, especially in the earlier grades, in his work at Grand Rapids.¹ This method is the easiest of all to employ, requiring no special machinery but involving only that some of the subjects for themes be taken from the field of vocations. It is used more or less extensively in many schools.

2. *Personal conferences* with teachers or principal on ambitions. There are very few teachers or principals who have not been approached by pupils for advice as to a life career. Systematic vocational counseling merely makes definite provision for this very natural tendency. Pupils are specifically invited to come for conference on their ambitions. Perhaps one or more of the teachers who are especially qualified, and particularly the principal, are designated as special vocational counselors. These may set regular hours for such conferences and, perhaps, maintain an office for the purpose.

3. *Trips to Industries*.—Pupils may be taken to various places where tradesmen are at work, for the purpose of getting acquainted with the character and conditions of the labor. Occasion can be taken to make inspections of health conditions and inquiry into the wages, hours of labor, and possibilities of promotion. Upon return to school the class can go over the visit in critical discussion. This can be made a very inexpensive and effective form of guidance, and can be administered either as part of a course on vocations or as a side issue in connection with English, community civics, geography, or economics.

4. *Systematic Courses on Vocations*.—These may take the form of regular classes in this subject. There are now available several excellent texts on vocations, suitable for high school

¹ See his book, *Vocational and Moral Guidance*.

classes. Not only vocationally but also culturally such course would be as valuable as anything else pupils could be doing in the same amount of time—more valuable than much they are now called upon to do. Or this instruction may take the form of merely a few lectures each year by men who have been successful in the vocations of which they speak. This can be done in the assembly period, especially if the period is somewhat lengthened for these occasions. The only danger is that the speakers may not stick closely to their subject and treat it systematically. The writer has found it valuable to put into the hands of each speaker an outline of the items the pupils would wish to know about, and to urge strongly that the speaker give information on each of these items. Some such list as the following may be used:

1. How broad is the field? What different sorts of jobs are included in it?
2. What training is necessary for it?
 - a. How much time does this training require?
 - b. What does it cost?
 - c. Where and how can it be got?
3. How much capital is required?
4. What remuneration does the occupation offer:
 - a. At the beginning?
 - b. Later?
5. What are the opportunities for advancement?
6. Is the field overcrowded?
7. What is its effect upon health?
8. How does one go about getting employment in it?
9. What are its congenial features?
10. What are its uncongenial features?

5. *Special machinery for vocational counseling, placement, and follow-up work.* This means a staff and equipment for giving tests, facilities for occupational surveys and for the study of educational values, secretaries for placement and follow-up work, etc. The more progressive school districts

have instituted "Bureaus of Research" for conducting educational tests and reshaping methods of teaching and the classification of pupils in the light of their findings. There is certainly just as good reason for spending money on a Bureau of Vocational Guidance as on one for the above-mentioned type of supervision.

III. VOCATIONAL PLACEMENT

The schools should, and doubtless will, have a larger part in the placement of their vocationally trained product than they have ordinarily had. The school is the logical "employment bureau" for those who are just completing, or have recently completed, their work in it. The school officers know their pupils better than anyone else could be expected to do, and have access to detailed records much more easily than could an outside party. They should be able to fill the demands of an employer seeking young workers much more intelligently than other agencies. A conscientiousness in making recommendations could be expected of them, too, proportionate to their integrity and their disinterestedness. On the other hand, the school is also far more likely to guard the interest of pupils than are commercial agencies or haphazard personal searches for work. The time should come when employers seeking young workers should bethink themselves first of finding them through the help of the school.

But the schools should not feel that their responsibility has ended when they have found the youth a job. They should follow him up, aid him wherever possible, and if he proves ill adapted to the work or if the work proves of less value than its promise indicated, should help him get adjusted into something else. The school should follow up and guide its pupils until they have got fairly launched upon their vocations and rightly adjusted in them.

How would the expectation of a school's participation in placement affect its prestige and its power over the pupil? Its prestige among business men?

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Take testimony among your associates as to how many of them feel that they have been handicapped by reason of not having had vocational and educational guidance.
2. Pick out some particular pupil between the ages of twelve and fifteen, acquaint yourself with the relevant facts about him, and make detailed notes of the advice you would, if opportunity permitted, give him regarding his future educational program.
3. Make an analysis, or otherwise map out a method, on the basis of which you might construct tests of probable capacity for one of the following vocations: high school teaching, surgery, locomotive engineering, printing.
4. Make a quantitative study of text-books in high school physics to determine what mathematics is needed for studying them. Do the same with text-books for general courses in physics in college. Would the one-year course in general mathematics in the ninth grade be sufficient preparation?

SELECTED REFERENCES FOR FURTHER READING

- BREWER, JOHN M., *The Vocational Guidance Movement*.
(A good discussion of the importance, history, and administration of vocational guidance.)
- BLOOMFIELD, MEYER, *Youth, School and Vocation. Readings in Vocational Guidance*.
- BOOK, W. F., *The Intelligence of High School Seniors*, chapters 4 and 7.
(Shows that high school seniors are not selecting vocations very largely in harmony with their abilities.)
- DAVIS, JESSE B., *Vocational and Moral Guidance*.
- HOLLINGSWORTH, H. L., *Vocational Psychology*.
- JOHNSTON, C. H., *The Modern High School*, chapter 24.
(Chapter by Mr. Bloomfield on Vocational Guidance.)
- KELLEY, T. L., *Educational Guidance*, Teachers College Bureau of Publications, New York City.
- KITSON, H. D., "Psychological Tests and Vocational Guidance," *School Review*, Vol. 24, pages 207-14.
(Sane critical article on the possibilities of psychological tests in vocational guidance.)
- LAPP AND MOTE, *Learning to Earn*, pages 262-84.
- LINK, HENRY C., *Employment Psychology*, Macmillan, 1919.
(The best book on psychological tests in vocational guidance. It

lacks, however, an account of testing by other persons than the author.)

LEAVITT, FRANK M., *Examples of Industrial Education*, chapter XVI.

LEAKE, A. H., *Industrial Education, Its Problems, Methods and Dangers*, pages 149-62.

MCCALL, WM. A., *How to Measure in Education*.

(Chapter on "Measurement in Vocational Guidance.")

MCCRACKEN AND LAMB, *Occupational Information in the Elementary School*.

(Much concrete material. Full bibliographies. Very helpful book.)

MUENSTERBERG, HUGO, *Psychology and Industrial Efficiency*.

N. E. A. COMMISSION ON REORGANIZATION OF SECONDARY EDUCATION, *Report of Committee on Vocational Guidance*, U. S. Bureau of Education bulletin 1918, No. 19.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. *Twenty-Third Year Book*, Part II, 1924.

(Account of present practices and extended bibliography).

NATIONAL VOCATIONAL GUIDANCE ASSOCIATION, *Vocational Guidance*. U. S. Bureau of Education bulletin 1914, No. 14.

PETERS, C. C., *Human Conduct*, chapter on "Choosing a Vocation."

PARSONS, FRANK, *Choosing a Calling*.

PUFFER, J. ADAMS, *Vocational Guidance*.

RYAN, W. C., *Vocational Guidance and the Public Schools*, U. S. Bureau of Education bulletin, 1918, No. 24.

SMITH, W. R., *Introduction to Educational Sociology*, chapter IX.

ROBBINS, C. L., *The School as a Social Institution*, chapter VII.

ROGERS, AGNES L., *Mathematical Tests and their Prognostic Value*, (Teachers College Bureau of Publications, New York)

TOOPS, H. A. *Tests for Vocational Guidance of Children Thirteen to Sixteen*.

WOODS, ERVILLE B., "The Social Waste of Unguided Personal Ability," *American Journal of Sociology*, Vol. 19, pp. 358-69.

CHAPTER VIII

THE COLD STORAGE PRINCIPLE IN EDUCATION

Cold Storage in Education.—At present the vast majority of our people get nearly all of their *formal* education by or before the age of eighteen. A small percentage go on to college beyond that age, some get a little formal training in Sunday schools or Y. M. C. A.'s, and we have scattered facilities for the systematic education of adults for certain specific ends—chiefly vocational. But in the main education is given in early life, as the following statistics of children of various ages in school clearly show:

ATTENDANCE AT SCHOOL BY AGES ¹

AGE	NO. IN SCHOOL	PER CENT IN SCHOOL
5 years.....	417,217.....	18.89
6-9 years.....	6,917,033.....	82.02
10-14 “.....	9,793,641.....	98.53
15-17 “.....	3,359,702.....	57.70
18-20 “.....	1,032,065.....	17.13
21 and above....	373,301.....	4.83

Much of the education given in these early years is not expected to function until some years later in the life of the individual. In the meantime it must lie in cold storage.

Reasons for Education in Childhood.—There are weighty reasons why, everywhere in the world, men have appropriated the period of childhood and youth as the period of formal education.

1. The individual is more plastic at that period, hence takes on training more readily.

2. Youth is a period of comparative leisure. The child is

¹ Taken from *U. S. Bureau of Education Report for 1915*, Vol. III.

economically useless anyway, or nearly so, and his time can be more advantageously used for schooling than for any form of production.

Disadvantages of Early Training.—But, as we are coming more and more to realize, there are also serious difficulties involved in these efforts to give in childhood an education intended to function chiefly in meeting the problems of adult life.

1. *The difficulty of motivating* the learning efforts of children in respect to situations that have, at the time, no vital significance for them. We work to attain ends that we value and, apart from such valued ends, work becomes paralyzing drudgery. This is true no less of children than of adults, though the sort of values that attract the young are very different from those that lure their elders. All of us are, too, less moved by the prospect of gains in the future than by those of the present, as the willingness to accept a discount for present payment proves; and for children the appeal of uses in the remote and almost unimaginable period of adulthood is weak indeed. It is against this universal tendency to put stress only into the meeting of immediate and clearly recognized needs that the teacher is battling when he is undertaking to give his pupils an education in civics and economics and mathematics that is to be primarily an education for a life beyond.¹ To piece out the weak appeal of remote ends the pedagogue has continually resorted to extrinsic and artificial motives—in olden times to the rod or other instruments of torture; in modern times to rewards, coaxings, and various extremely ingenious forms of camouflage—but always with a degree of artificiality and never with complete success.

2. *The forgetting* which is inevitable when training must lie long in desuetude. If a lad were taught, at the age of twelve in his civics class, how to mark a ballot, no one would expect anything else than that much of this information would have vanished from him before he had occasion to use it at the age

¹ See Dewey, *Democracy and Education*, pages 63-65.

of twenty-one. The same thing would be true of matters related to domestic life, of vocational information and habits, of foreign languages learned early but to be used later, or of any other kind of training when an interval must elapse between the acquisition of the training and its functioning. Of course something is gained by the early learning. Relearning always, no matter how long delayed, takes less time than the original learning, or less than it would have taken if there had been no previous learning. But still it does take time for the relearning and the lapse of the interval that has made this necessary is uneconomical. But ordinarily we have had the individual at our call only during childhood and youth, and if we were to educate him in the schools at all for certain future emergencies, we were obliged to do so when we could command his time, the disadvantages of a period of cold storage notwithstanding.

3. *A lack of maturity* that makes it impossible, or at least awkward, to give in childhood certain kinds of training needed later. There are moral relationships in respect to which one needs the help of some systematic educational agency for clarifying his ideas, but the consideration of which demands a wealth of social experience on the part of the individual that could not be presupposed in youth. There are problems involved in married life that some school could certainly help men and women to solve better, but which could not be discussed with children in the early teens. Similarly there are many phases of education needed for effective citizenship, vocation, and culture for which the child, during the conventional school period, is too immature.

4. *Uncertainty as to what the educand will need*, with consequent waste in teaching him much he will never use. For a long time we have been teaching all of our children what only a few of them would ever be called upon to use, largely because we did not know which would need it and which would not. The reader need reflect only a minute to realize how true this has been of the teaching of foreign languages, of all but

the most elementary features of mathematics, of geography, of physics and chemistry, and of many of our other studies. We have preferred to give a hundred things the pupil would never need rather than miss one thing he might need. But the waste in this hit-and-miss policy is clearly obvious.

Education as Living Versus Preparation for Life.—In view of these difficulties, and especially the first-mentioned, one contemporary school of educational thought is insisting that education should not be looked upon as a preparation for life but as participation in life. The child should not be purposely getting ready for the meeting of problems likely to confront him in the future, but should be merely living, wholeheartedly and spontaneously, in the present, and meeting in a natural and unaffected way the real problems of child life that confront him in this juvenile experience. The best preparation for future life, these educators contend, will come inevitably as a by-product from this spontaneous living.¹

But there are others, and to this class the writer belongs, who do not believe that spontaneous activity, not continually and consciously headed toward some worthwhile goal, is likely to be maximally educative. Rifle-shooting, whittling, fishing, traveling, never come to much unless deliberately directed toward ends and, though much that is educationally worthwhile doubtless comes merely by the way, there seems no sufficient reason to believe that the habits, ideals, information, etc., necessary to fit one maximally for coping with the problems of life would always come, and come economically, from random activity. It is our belief that the educator must ascertain what are the traits necessary for successful living, within the several spheres his pupils are likely to occupy, and then so manipulate the situation that his pupils shall engage in such activities, and consequently get such experiences, as are likely to eventuate in the de-

¹ For a theoretical exposition of this doctrine see Dewey, *Democracy and Education*, and for practical examples see *Schools of Tomorrow* by Professor Dewey and his daughter.

siderated traits. To the children themselves the activities may seem as spontaneous as the skill of the teacher may make possible, but the teacher has so set the stage, or has resorted to such suggestions, encouragements or dissuasions, as to have largely controlled these activities and to have kept them continually directed toward the ends he knows to be educationally most worth while.

Need for Upward Distribution of Training.—The necessity for holding on to the policy of making education a *preparation* for life, and yet for minimizing the disadvantages of the cold-storage principle, imposes the task of finding some sort of machinery for distributing training upward in the life of the individual. There are types of training that cannot be given effectively except as they are given at a much later stage of development than has hitherto been conventionally used for school education. Take, for example, the case of leadership: While the term, "education for leadership" has often been used to mean education for the more technical places within any field of work (as expert accountant, specialist in agriculture, consulting engineer, factory organizer, chemist) without any implication that the individual actually performs the function of "general" over a group, the term should be restricted to its normal meaning of control over others. In this latter sense one would be exercising leadership only in so far as he commanded a following. Now it seems clear that no adequate training for leadership in this sense could be given in childhood and youth. You could not turn out of the schools real leaders at the age of eighteen, or even twenty-two. For leadership demands a certain amount of maturity with the ripening effect of experience. Experience, alone, of course, is not all that is desirable, but any technique of leadership that could be taught in the schools should come after the experience, or simultaneously with it, not before.

The same thing is true of the higher positions in industry, or in the learned professions. The undergraduate years, or

graduate ones immediately following them, are too early for the training of a superintendent of schools. The future superintendent should get out and teach a while and then return to school for further training for the administrative position. We are not yet in the habit of putting inexperienced men, direct from school, into foremanships or factory superintendencies, and probably never shall be. We demand for these places some age and experience, and technical training, if any, either given or reinterpreted in the light of such experience.

In preparation for domestic life there are obviously also necessary elements that could not be appropriately given in childhood. The ethics of certain phases of married life, the care of children, the intelligent control of childbirth, and a score of other matters contributing toward successful marital relations, must be learned near the time when the learning is to function. Up to this time we have left these matters largely to chance, or to casual newspaper articles or public lectures, but if our systematic educational machinery is ever to take an effective hand, it will be necessary for us to arrange a different distribution of time from that which now obtains.

In citizenship, too, there are many problems for which education can be most economically and effectively given only when the individual is in actual sight of the problems in question, not before. Indeed an examination of the range of emergencies with which one must deal in life, and for the meeting of which machinery for systematic education might give him extremely valuable assistance, would reveal many for which training cannot be well given during the traditional period of schooling but must be given, if given at all, at some later time when the individual has attained the necessary basic maturity and experience and is sobered by the impending approach of the concrete problem.

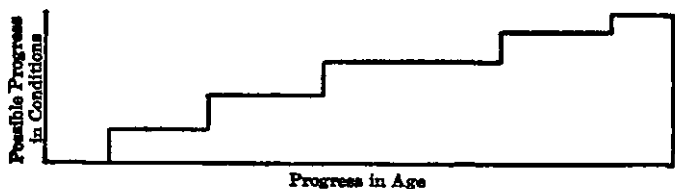
The Stairstep Character of Progress.—The philosophy that has governed our educational policy has been somewhat as fol-

lows: We have assumed that the path of life is a gradual, continuous ascent toward the pinnacle of success. We have exhorted our people to mount this acclivity by steadily working, thinking, climbing. We have said that one needs a good education at the start to give him momentum and to serve as a source of power for enabling him to maintain his pull up the long incline.

Whether or not this was ever a true description of the course of life, it is certainly not so now. The progress of the individual is not up a steady incline to more responsibility, but up a series of fairly discrete steps. Our life, and especially our industrial life, is broken up into a very large number of specialized activities, for the most part distinctly marked off from each other. One does not grow gradually out of the one of these specialized fields into another but passes from one to the other by a sudden transition. The old idea of beginning as office boy and mounting by normal ascension to the top of the business is now a myth, if it ever was an actuality.

The typical farmer of the Mississippi Valley, for example, goes through the following stages ordinarily: (1) Up to the age of eighteen he is a "boy" on his father's farm; (2) from eighteen to twenty-five he is hired man on a farm; (3) twenty-five to forty, tenant farmer; (4) beyond forty, owning farmer. In the printing trade one goes through the stages of errand boy, compositor, stoneman, and foreman. In school work one passes from classroom teaching to headship of a department or principalship, to superintendency, with often intermediate jumps as from country school to village, to small city to large city. Even where the promotion is not from one job to another of the same general type but more inclusive, it is likely to be from one kind of work to another kind offering more congenial conditions or better pay but confronting the worker at each shift with a new set of problems (as promotion of a salesman from the handkerchief room to the suit room or from a traveling to an office position). Not

only does vocation but also citizenship, and domestic relations, and even culture and morality present this stratified form of ascent. Diagrammatically we might represent the situation as follows:



Up-Grading Schools.—The educational scheme best adapted to meeting this situation is clearly suggested by the character of the progress. It is the supplementation of the general education of childhood and youth by a series of “vestibule” and “up-grading” schools functioning at the various transitions.¹ Whenever one shifts into a new—or even partly new—field, and is confronted in consequence with new problems, there should be a “school” to assist him in squaring himself with those problems. For such “school” is nothing else than an agency for systematically putting at his disposal the experiences of others so that he may be saved the costly blunders of the trial-and-error process.² This “school” may be very simple or very elaborate. It may range from five minutes of verbal suggestions, or a small pamphlet of directions and cautions, to several years’ leave of absence from the industry for study and training. But the essential thing is that it should systematically place at the disposal of the learner for his guidance the results of previous human experience, and that it should address itself specifically to the particular new problems to be met, so as economically to mature in the educand pre-adjustments for them.

Illustrations.—Following are a few illustrations of the sort

¹ See Snedden’s *Vocational Education*, pages 224–228 and his article in *School and Society*, Vol. 8, pages 751–8.

² See chapter *infra* on the *Function of the School*.

of situations in which some form of up-grading school might be useful:

1. When one changes his work in a factory or in any other vocation.

2. When one first becomes a voter.

3. When one marries and is confronted with the new problems involved in getting along with a mate and in running a home.

4. At or near the birth of the first baby.

5. When there are children in the home needing physical care, instruction, or disciplining.

6. When one becomes owner of an automobile.

7. When one advances from the "general" practice of a vocation to a specialty—as when a physician gives up general medicine and confines himself to nervous diseases; or teacher, preacher, or lawyer assumes executive positions.

8. When there are newly developed, or changed, recreations fairly complex yet worth learning.

9. When there have been new developments in any field (for those who ought to use them), as acetylene welding, farm tractors, the therapeutic uses of radium, or standardized educational tests.

Present Up-Grading Schools.—The policy of up-grading schools is not entirely untried in practice. The more progressive physicians take time off occasionally for study to enable them to enter upon a new specialty or to get in touch with recent medical developments. Educators, ambitious to embark upon a wider field of work, come into the universities in preparation for it. A number of factories conduct vestibule or improvement schools to fit their employees for the newer tasks that are confronting them. Correspondence schools, Y. M. C. A.'s, public evening classes, and many other forms of public and private teaching serve the same ends for a wide circle of persons. Twenty-one states had compulsory "continuation schools" at the end of 1921 providing from four to eight hours of instruction each week for

children between the ages of fourteen and eighteen or approximately those ages; a number of other states have optional provisions. These are partly up-grading schools. But as yet our "system" of up-grading schools is so meager and unsystematic, compared with what it might be, that we are not really entitled to call it a system at all. An adequate scheme of education will demand that we carry our present continuation school policy upward to the *nth* power. When we shall have worked out such complete system of education, we shall utilize the period of childhood and youth for general education, and perhaps its later years for systematic vocational education, and shall then supplement this basic training with a full complement of short unit courses, very specific and highly purposive in character, to help all individuals prepare to meet, with the minimum of waste, the new sets of problems that, from time to time, confront them.

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Look up Fiske's theory of the meaning of human infancy and discuss its bearing on this chapter.
2. Look up the results of psychological experiments on the influence of age on ability to learn. How are they related to the thesis of this chapter?
3. Go through the analyses in Appendix A of this volume and try to decide which elements require greater maturity for their learning than school children could well have by the age of fourteen. By the age of eighteen.
4. Question members of a group of adults regarding needs they have experienced for training in respect to civic and other social relationships that could not well have been got in the lower schools. To what extent do these experiences indicate a need for "up-grading" schools?
5. Make an estimate of the probable cost to a community of 10,000 people to maintain adequate continuation school facilities for such training for citizenship and for domestic efficiency as this chapter would call for. Could the community afford it?
6. Do persons who have stayed out of school for five years and then come back get more or less out of the extra schooling than those who stay on continuously? Those who stay out ten years? Fifteen

- years? Formulate a method by which you could establish your conclusion scientifically and apply the method.
7. By measurement in terms of average money returns compare the progress of a sampling of persons who have taken some form of "further" education with a sampling of persons of equal ability and initial training who have not.
 8. Fifteen years ago Professor A. J. Jones made a study of the status of all forms of "further" or "continuation" education in the United States. But there have been great developments in these opportunities since then. It would be a worthwhile research to bring this study up to date.
 9. Make a quantitatively controlled study of magazines to determine to what extent they fulfill the function of the continuation schools called for in this chapter, ascertaining what they offer and what proportion of the people are reached by them. What need still remains, if any, for continuation schools for adults?

REFERENCES FOR FURTHER READING

- ALLEN, C. R.**, *The Instructor; the Man and the Job*, chapter XLII.
(Good short chapter on training for deferred values versus training for immediate values.)
- DEWEY, JOHN**, *Democracy and Education*, pages 63-65.
(Criticism of the conception of education as preparation.)
- KELLEY, ROY W.**, *Hiring the Worker*, chapter VII.
(Describes some up-grading or continuation schools conducted by industries.)
- LINK, H. C.**, *Employment Psychology*, chapter XXI.
(Chapter on the vestibule school.)
- LINK, HENRY C.**, *Education and Industry*.
(Splendid recent book on training for various positions in industry.)
- SNEDDEN, DAVID**, article on "Vocational Education after the War," in *School and Society*, Vol. 8, pages 751-8.
(Discusses the place of the vestibule and the up-grading school in vocational education.)
- SNEDDEN, DAVID**, *Vocational Education*, pages 89-90 and 224-40.
(Discusses vestibule and up-grading schools.)

CHAPTER IX

AGENCIES THAT EDUCATE—ASSOCIATION

Education Broader than Schooling.—Education is a much more comprehensive and many-sided thing than we ordinarily realize. Too often when we speak of getting an education there comes to our minds at once going to school. As a matter of fact, school is only a small factor in the total process of education. For hundreds—perhaps for hundreds of thousands—of years men got along without any schools at all, and our fathers, who founded this great nation, had on the average only a few months' schooling in their whole lives. Even now school occupies only a small part of one's time. A child spends six of his most impressionable years before starting to school. During this time he learns the vernacular, learns to get along with his playmates, learns to protect himself from countless dangers, and learns to help himself in attaining his ends when dealing with many material situations. In fact, there is no other six-year period in which he learns an equal amount that is so fundamental to social and individual living. During those years in which he is attending school he is actually in the classroom not more than a thousand hours a year, which is only about one-ninth of the aggregate time. Then follow from thirty to sixty years during which he no longer attends school. In all of these out-of-school years, and these out-of-school hours during the school career, he is learning much, very much.

For there are educational forces of the most profound significance continually playing upon him, whether out of school or in. Sometimes education is one direct aim of these extra-school agencies, as in the case of the church, Chautauqua, propagandist press, and, in some respects, the family. But

more often these agencies yield education only as a by-product, while their main function lies elsewhere. This is the case with shop, playground, stage, juvenile court; police, the "movies," and ordinary work. Sometimes, too, these agencies affect education deleteriously instead of favorably, so that their effect must be counteracted by society's purposively educational institutions.

Function of the School.—But among this wide range of educational agencies the school has a unique place. It is the specialized agency that society has set aside for formal education. It systematically organizes its training while that of most other agencies is haphazard and incidental.¹ To the school, society has delegated the obligation to see to it that the oncoming generation shall enter the field of adult responsibilities equipped to take effective hold upon the problems of life. Its social responsibility is a blanket responsibility within the field indicated above. There is no type of training that one needs for success in any aspect of life that is not the school's proper concern. It is not its privilege to draw itself up within the limits of a traditional curriculum and say, "these other things do not belong to me." If they pertain to fitness for effective living, whether related to health, wealth, sociability, knowledge, beauty, or rightness, and if they can be at all improved through training, they do belong to the school.

The School's Function Residual.—But the school need not itself attempt to give every form of training needed for life. It should not do so. It is only the co-ordinating and supplementing factor among all the educational agencies. Its function is a distinctly residual one. It must itself do whatever needs to be done but which no other agency is adequately doing. It begins where the other agencies leave off. That involves, on the one hand, that it should not blindly duplicate what other agencies are doing, for there is too much to be accomplished to allow of any waste on purposeless duplication;

¹ For discussion of the characteristics of the school as an educational agency see chapter III.

and, on the other hand, it involves that the school should not pass by any sort of training needed for effective future life which no other agency is adequately giving, no matter how far removed its giving would be from the conventional practice of our schools.

How shall we find what is this residual function left for the school? Evidently, on the one hand, it will require us to make exhaustive and detailed surveys of what are the fitnesses requisite for complete living, in order that we may not accidentally overlook any for which we should be training; and, on the other hand, it will require that we systematically assay the contributions of other institutions—the home, the church, the workshop, the street, the moving-picture house—in order that we may articulate our work with theirs, and fittingly supplement their contributions. Some home visitation and some general observations, coupled with common sense, will enable us to go a long distance in articulating the work of the school with that of the community. But before we can go anything like the whole way, and maximally adjust the school to its residual function, we shall need to apply scientific methods to both aspects of the problem mentioned above. Such methods are suggested and illustrated in Part II of this volume.

Test, by the two standards proposed above—avoiding duplications and avoiding gaps—what the school needs to do in respect to such matters as the following for different type groups of pupils: vocal music, instrumental music, music appreciation, English expression, etiquette, play, sex instruction, morals, education for citizenship, vocational education.

General Account of Educational Agencies.—For the sake of general orientation we shall discuss briefly in the remainder of this chapter, and in the next three chapters, the most important non-school agencies that contribute largely to education. Our space will permit dealing with them only very cursorily, but our purpose does not demand an exhaustive account.

Moreover, anyway quantitative studies need to be made of the educational contribution of these before it is worthwhile to say much about them.¹ At present there are available very few scientific studies of the educational contribution of non-school agencies.

Association as Educative.—We may recognize as the first of these educative forces *mere association*. One person cannot be with another without getting something from him and giving something to him. Even two deaf-mutes working together, although they could not say a word, would still react upon and influence each other. The grimaces of the face, or other signs of emotion or intelligence on the countenance or in the posture, of the one would induce ideas and emotional attitudes in the other, and thus control his experience and be a factor in molding his conduct and character—that is, in educating him.² Much more so is there mutual influence where the parties can freely and effectively communicate with each other. The “only” child is on the average distinctly inferior to other children. He is likely to be selfish, morbid, unable to play well, lacking in the spirit of fair play, and even inferior to others in intellectual performances. It has been shown that more persons who are relatively devoid of companions commit suicide than others, and the percentage of insanity among prisoners confined in solitude is alarmingly great.

Like-Mindedness through Association.—Many evidences can be easily found of the fact that men influence each other through association. It has been said that “Birds of a feather flock together.” We ordinarily take that to mean that persons of a given temperament seek others of like nature with whom to associate; but it may be (when taken symbolically) not only because the “birds” have a common likeness to start with but also because they are drawn into a common likeness by being together. Members of a crowd always tend strongly

¹ For illustration of such study, see Miss McGraw's findings regarding the training in tastes given by the family, reported in chapter XIX of this volume.

² See Dewey, *Democracy and Education*, chapter II.

to be pulled to a common level—up and down. In “Locksley Hall” Tennyson says:

“As the husband is the wife is; thou art mated with a clown,
And the grossness of his nature will have weight to drag thee down.”

Every school in which students mingle freely and strive seriously for the attainment of a common purpose welds its student body into homogeneity of character. Likewise a village, a community, a state or a nation tends to take on a certain degree of solidarity, the amount depending primarily on the ease of communication and the existence of compelling common purposes. It is difficult for a person to associate continually with others without being drawn into like-mindedness with them. The only reason why it is not *impossible* for one to do so is because one may work alongside of the members of one group while maintaining his real membership in another. From time to time he mingles again with his own group, or, if its members cannot be with him personally, he associates with them in imagination, guiding himself by what he knows would be their approvals and disapprovals. Thus he may combat the centripetal force of the group among which he is unwillingly thrown and, though being with them, be not of them. He is fighting the power of one set of associations with the power of another set. But this situation is highly abnormal, cannot be maintained except by external pressure, and is certain to produce intense antagonisms or even active violence. Race antipathies, such as those between whites and negroes in the South, natives and Japanese on the Pacific, and Jews and other races nearly everywhere, are due to the fact that sets of individuals are thrown into physical contiguity who refuse to intermarry or otherwise to fuse in spirit. It is a fundamental law that association shall produce like-mindedness and solidarity.

Imitation.—Few of us are as independent in our thinking as we like to fancy we are. Much of our thinking is mass thinking. As we look back upon the waves of enthusiasm

with which the various peoples entered the recent war, they seem unreal and incredible to us. In practically every nation the people, wild with excitement and eagerness, stampeded their governments into action. They welcomed war, not only in Germany but everywhere, as if its beginning were "the great day" of their history. There were very few persons within these nations who were not soon gripped by the war spirit, and these few who were not caught by it were very soon hushed by threats, or even deeds, of mob violence. Soldiers can do, when associated with their comrades in arms, deeds of bravery of which many of them would be incapable alone. Religious revivals sweep certain parts of the country as epidemics. Political "heroes," or political ideas, have their periods of ascendancy when "everybody" is supposed to be for them. A little later "everybody" is just as solidly against them, and they are soon either forgotten or contemned by the fickle public. Opinions, convictions, pedagogical and social theories, economic foibles, spread through the land by contagion. Whatever the sentiment in question be, the whole atmosphere is surcharged with it. We take it that "everybody" believes "so and so" and consequently we open our minds to the same beliefs and adopt them uncritically.

What we call tastes (styles of dress, likings for certain kinds of music, literature or art, sense of the fitness of given kinds of conduct) illustrate perfectly this solidarity of mass thinking. There is nothing more whimsical than tastes. I once saw displayed in a store window the typical shoes of 1885, 1895, and 1905. The first had excessively broad flat toes; the second, extremely long pointed ones, projecting at least four inches beyond the foot; while the third was the medium toe then in fashion. The long, pointed toe of 1895 looked absurd ten years later, but it did not seem absurd in its own day. On the contrary, as I can well remember, we thought it handsome. "Everybody" looked with approval upon it; that put us into a sympathetic attitude of mind; and we saw it favorably in consequence. The long, trailing skirt, the merry widow hat,

the hoops of our great-grandmothers' day and the bustles of our grandmothers, the knee breeches and the cocked hats of our Revolutionary fathers, all ravishingly beautiful in their own time, simply amuse us now. Not only do styles of clothing thus change but so, though less rapidly, do music and literary tastes, religious reactions, and even opinions on ethical matters.

"Feathers on the legs of a rooster can multiply its value two hundred times. The appalling squawks and clangs of a Chinese orchestra can entrance the soul. Most of the 'higher' artistic appreciations have to be cultivated, and the method of their cultivation is partly a process of sympathetic radiation from persons whose tastes are trusted. . . . A generation ago it was entirely possible for many of the most cultured, Christian, and refined to approve of slavery, because there was a great group of civilized and Christian people in which the approval of slavery still prevailed, and the approvals of the group by sympathetic radiation form the conscience code of the individuals who are born into the group. Abraham practiced polygamy with a clear conscience because he belonged to a society that felt no disapproval of polygamy. . . . Many peoples, including the North American Indians, are brought up to feel that he who fails to avenge an injury either to himself or to one of his tribe is craven."¹

In fact our moral conscience, which many people mistakenly look upon as an inborn and infallible guide to conduct, is merely the reflection of the approvals and disapprovals of those with whom we have associated and whom we have held in esteem.²

Osmosis in Society.—Hayes uses the term *osmosis* to express the mutual influence of men in society (What does osmosis mean in physics? Does the figure fittingly describe what goes on in society?) He recognizes three forms that this may take: (1) Suggestion, by which the *ideas* of one person become known to another and influence that other's conduct, as indeed all ideas that are communicated to us tend

¹ Hayes, *Introduction to the Study of Sociology*, pages 317-18, published by D. Appleton and Company.

² For an excellent discussion of this whole matter see Hayes, *Introduction to the Study of Sociology*, chapter 17.

to do; (2) sympathetic radiation of sentiments, feelings, prejudices, unreasoned beliefs, tastes, by which these pass from one as a center out to the many; and (3) imitation, conscious or automatic, by which the *acts* of men are copied by those who associate with them.

If an accurate estimate could be made of the educative effects of mere association, operating in these three ways, we would undoubtedly find that much the largest part of our ideas, beliefs, etc., are got in this way. What a boy picks up industrially, morally, culturally by imitating his elders, his companions, his heroes, makes a mighty big part of his equipment for life.

What follows regarding the example parents and teachers set for children? Do children imitate certain persons more readily than others? What conditions determine which models make the strongest appeal? Are these conditions within the control of the educator? How? Since children would acquire more good from some associations than from others, it would be extremely worthwhile to make them members of optimum groups, if possible. Can that be controlled? How? Is it more promising to depend upon the choice of a group for the child or to attempt to improve the group with which he would most naturally associate? How? How successful is a woman likely to be who marries a man "to reform him"?

De-Educative Effects of Association.—However, the education picked up by association is not necessarily good. Some of it eventuates in habits, ideas, and attitudes, that are socially undesirable. These we must offset by formal education directed toward opposite ends. Perhaps the greatest problems that arise out of these de-educative associations have to do with training the child out of the unfortunate habits of expression picked up on the street, and correcting the distorted and unwholesome sex ideas gathered from companions. But there are also serious problems arising out of wrong notions of loyalty, perverted ideas regarding property rights, and crude manners appropriated from the codes of the groups to which the children belong.

Interpret some perverted attitudes on the part of children who are fundamentally good in terms of the bad influence of companions.

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Make a list of all the non-school educational agencies you can think of in your own town. Using the contribution of the school as a measuring unit, with a value of one hundred, place an estimate after each representing its contribution to education. Make out a form calling for separate estimates for different age levels, different type groups, and different divisions of education (culture, health, etc.).
2. Formulate a method by which you could replace the free estimates of the problem above with objective findings, taking account of:
 - (a) The range of contributions offered.
 - (b) The number of people reached by them.
 - (c) The efficiency of the presentation—that is, the strength and persistence of its effects.
3. How many schools can you discover that take account in some systematic way of the music pupils study through private lessons? How many teach them in school in exactly the same way as if they did not take private lessons?
4. If conditions permit you to undertake a rather extensive research, see whether you can confirm scientifically the alleged fact that an "only" child is likely to be intellectually inferior to others. Also devise methods of measuring various aspects of will-temperament and see what effect the relative lack of opportunity for association on the part of such child has on his character.
5. Collect as many historical or present-day examples as you can find that confirm the claim that, if individuals come into contact but do not fuse in spirit, active hostility will grow up between them. Collect examples that refute it.
6. Make a study of the causes of prestige as follows: Let each member of the class get in mind one person who is markedly a leader in a group—a center from which influences radiate. Let him write down the characteristics this person is known to possess that might have something to do with his prestige. Then telescope all of these lists together. What does the composite list show to be the main factors in prestige? Which of these are subject to control either by the individual himself or by others? Make separate studies for several age levels.
7. Hold a "testimony meeting" of the class, in which each person tells of things—good or bad—that he picked up from association rather

than from formal instruction. From these testimonies evaluate the significance of association as a factor in education.

8. Turn to the analysis of culture given in Appendix A of this volume. Try to decide which of the elements listed there will be adequately taken care of by the home and other non-school agencies, and which need the attention of the school, studying the list separately for each of the following type groups:
- (a) Children of coal miners in West Virginia.
 - (b) Daughters of manufacturers and large retail merchants in medium-sized cities, living in well-furnished houses on the more aristocratic streets, and whose mothers take a prominent part in the better club-life of the city.
 - (c) Sons and daughters of families living in the mill districts of small cities, in which both parents work out.
 - (d) Sons of renting farmers in southeastern Pennsylvania.
 - (e) Any other type group.

REFERENCES FOR FURTHER READING

COOLEY, C. H., *Social Process*, chapter 24.

(Discussion of class and race conflicts.)

HAYES, E. C., *Introduction to the Study of Sociology*, chapter 17.

(A splendid analytic chapter on the molding of the individual through association with his fellows.)

DEWEY, JOHN, *Democracy and Education*, chapter 2.

(Part of the chapter devoted to discussion of the educative effects of association.)

ROSS, E. A., *Principles of Sociology*, chapter 10.

(Effect of solitude and the struggle of personalities in association.)

SMITH, WALTER R., *Introduction to Educational Sociology*, chapter 3.

(Chapter on Social Organization).

CHAPTER X

THE FAMILY AS AN EDUCATIONAL AGENCY

Primary and Secondary Groups.—In discussing the solidarity and the socializing power of groups, sociologists are accustomed to recognize two categories, with perhaps an intermediate one between them—primary and secondary groups. The primary groups are those in which the members come into face-to-face contact with each other, as they do in the family, the schoolroom, the local church, the lodge, and, to some extent, the village. Secondary groups are those in which the members come into only indirect contact with each other, through reports, hearsay, agreements effected at a distance, or some passing acquaintance, as they do in the state, federated labor unions, national teachers' associations, or economic groups in which the membership is widely dispersed. Obviously the socializing influence, as well as all other crowd phenomena, of the primary group is vastly greater than that of the secondary group and the former is correspondingly more potent as an educational factor than the latter.

Importance of the Family as a Primary Group.—Of all the primary groups the family provides the most intimate and personal contacts. It is, therefore, the most fundamental of all social groups. Historically, the horde or clan may have acquired solidarity before the family did, but certainly in modern life no other institution reacts so powerfully upon its members to mold them as does the family.

Are there individual exceptions? Illustrate. Explain. Do they refute the rule?

One great sociologist has called the family "the social microcosmos" and Professor Henderson uses the translation

of this word for the heading of his chapter on the family, "The Social World in Miniature." In the family one enters into practically all the relationships that characterize social life in general. There are here the rudiments of division of labor and economic co-operation; legislation; courts with their arguments, weighing of merits, and judicial decisions; moral inhibitions and adjustments; property and property rights; superordination and subordination, etc.

Show how, in each case. What softening of impact as compared with outside life? Consider the potency and the adaptation of the family as an agency for training its members for participation in general social life.

Past and Present.—Historically, except for very early times,¹ the family was much more important as a social institution than it is at present. Among the Hebrews in Biblical times the child got nearly all of his training from his parents. The father was never too busy to take an hour each morning for the religious and ethical instruction of his family, and it was from his father also that the son learned his trade, as it was from the mother that the daughter learned the graces and the practical arts of Jewish womanhood. In the early and great days of Roman history the family had an equally important place² and indeed throughout the mediæval and modern period among our European progenitors the family, though there supplemented by the church, remained the great molding factor in life. In fact, we need not go back very far to find the family still vigorously exercising many of the functions that gave to it its supreme potency and solidarity in the past. It was the religious center (*why more than now?*), the economic unit (*how?*), the school of moral character, and the supreme formative factor in almost all vital ways.

Disruption of the Family.—But that there have been, now for some time, pronounced tendencies toward the disruption

¹ See Todd, *The Primitive Family as an Educational Agency*.

² See Ellwood, *Sociology and Modern Social Problems*, chapter VII.

of the family all sociologists have noted. This began with the individualism and freedom of thought of the Protestant Reformation; shaped itself up more specifically in the great movement of the eighteenth century toward human equality with its new emphasis on the rights of women; and was abetted and accentuated by the industrial revolution, with its profoundly significant economic readjustments. Not only have these forces made marriage less stable, but they have immensely weakened the influence of family life upon the children. Specifically these disruptive or enfeebling forces have been mainly as follows:

1. Woman's recognition of the equality of her dignity and her rights with those of man, and her moral courage to press these claims.

2. Woman's economic independence, made possible by the development of factory production and the division of labor. She can now earn her own living, either before marriage or after separation from an undesirable mate.

How is this related to the first point? Why is "old-maidhood" counted less of a calamity now than previously?

3. Lax marriage and divorce laws.

Compare the United States with other countries and present practice with past.

4. Weakening of religious sanctions, taboos, and, in general, the breakdown of old philosophies and authoritative categories of thinking (*Illustrate*).

5. Increasing percentage of people living in cities, especially in apartment houses. (*Why?*)

6. The fact that the father, and often the mother also, works away from home, and consequently has very little contact with the children, thus making the influence of the parents less in molding the lives of the children than was the case when all worked together at home.

Does this affect rural life? What occupations are exempt in the city? How many mothers work away from home? ¹ How does this affect the feeding of children? ²

7. The upward extension of education, the long school year, and the provision even for play away from home—the last being necessitated chiefly by the crowded conditions of city life.

Show how. Is this a reason why fewer girls learn to cook and sew at home? What other reasons?

8. The many contacts with other persons than members of the family, with the sophisticating influence of this as contrasted with the former isolation of the family.

How would this lessen the influence of the home?

9. The lack of opportunity to have the children assist with small chores, as was possible under the older economic order.

Why? In what sense were these chores educative?

10. The increasing percentage of persons who rent rather than own their homes.

Why should a fixed abode, perhaps the family home for several generations, affect the character of the members of a household? ³

The Present Status of the Family as an Educational Force.
—But, even if because of the reasons mentioned above, the family no longer molds the youth so powerfully in comparison with other agencies as it once did, it is still an educational agency of vast importance—certainly second to none other than the school if second even to it—and the educational sociologist must take serious account of it. We shall discuss its place in education under three headings:

¹ Blackmar and Gillin, *Outlines of Sociology* (Revised Edition), page 127.

² Terman, *Hygiene of the School Child*, page 104-5.

³ See Blackmar and Gillin, *Outlines of Sociology* (Revised Edition), page 128.

1. Its status and function as a selective agency.
2. Its distinctive contribution to direct education.
3. Its function as co-operating with the school.

I. THE FAMILY AS A SELECTIVE AGENCY

Children the Center of Family Life.—The family can make its contribution to society on the selective side by insuring to the race "well-born" children. The child is the center of family life. Historically the family arose out of the necessity for caring for the offspring during its period of helplessness. Where this necessity does not exist, the relations involved in perpetuating the species are purely promiscuous. Biologically considered, love has no other function than to produce progeny; marriage, with its separate home for the newly mated, no other meaning than to provide a nest for the young. It is children chiefly that insure the stability of family life. Four times as many divorces occur in homes where there are no children as in those where there are, in proportion to the respective numbers of such families; and Chatterton-Hill has shown that half again as many suicides occur among childless adults as among those with families. Even among the lower animals, and among birds, matings are much more likely to be permanent where there is offspring than where there is not. There may possibly be some excuse for marriage and a separate home where children are not anticipated and intended; but to enter into such relation with that expectation and intention is wholly abnormal. (*What excuse?*)

The Right to be Well Born.—The rights of children should, therefore, be a primary consideration in mating. The question should be thoroughly considered, "What sort of parent will the contemplated mate be? What sort of children will be the result?" Every child has the right to be well born. Democracy has made a fetish of the right of every existing member of society to an equal chance with all other members; but is it not equally obligatory upon us ethically to extend this guarantee of an equal chance to those whose fates we

have in our hands but who are not yet present to defend their rights—that is to the still unborn generation? Is it any more fair for us to unload on certain individuals, who will seek their happiness during the next seventy years, hereditary burdens that will subject their bodies to physical tortures and their souls to the mortifying recognition of insurmountable inferiorities, than it was for an arrogant class of the social élite to saddle upon unfortunate contemporaries unbearable economic loads and to bind them with political and social limitations? To just such handicap we do put vast numbers of the children who are born each year. They come into life with a drag. Insanity, feeble-mindedness, epilepsy, nervousness, criminality, moral delinquency, physical malformations, weakness of personality, susceptibility to disease—all in part hereditary traits—are the lot with which they are born.

If these misfortunes of birth were accidental, due to pure chance or to some prenatal fright or other uncontrollable cause (as a popular superstition assumes them to be), we could do nothing to prevent them; we could only regret their occurrence. But such is not the case. They are no more accidents than is the collision of two trains. They occur in strict obedience to biological laws. Ideally in all cases, and practically in very many cases, they might have been foreseen, and might have been prevented. The elimination of cretinism in the province of Aosta, Italy, affords an illustration. When David Starr Jordan visited Italy in 1881 he found cretins—people with abnormal thyroid glands and marked imbecility—everywhere. When he visited the same province twenty years later scarcely a single cretin was to be found. By segregating the sexes so that they could not propagate their kind, thus passing down their misfortune to sons and daughters, the deformity had been eliminated in a single generation. If we really cared to do so, we could eliminate from posterity by the control of heredity practically all congenital defects except those that occur as pure “sports”—if any “sports” ever do occur, a thing about which biologists differ at present. If, in addition,

we could eliminate by care in matings the effects upon children from the venereal diseases of their parents—gonorrhœal conjunctivitis which causes at least 80 per cent of all blindness from birth and syphilis which causes nervousness, epilepsy, feeble-mindedness, and idiocy in the unfortunate offspring—we should have gone far toward ensuring to each child a fair start in life.¹

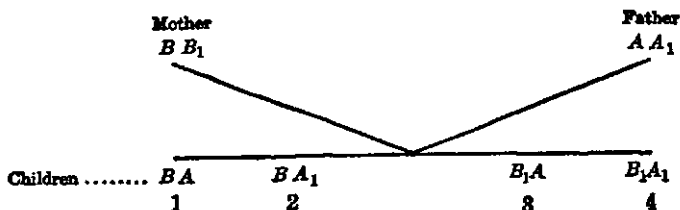
The Laws of Heredity.—Mendelism. A comparatively short time ago we did not have the information necessary to guide us in this matter of intelligently controlling the physical character of the next generation. We knew the principles of heredity only in a general way. Writing in 1899, one of America's well-known zoölogists asserted that "it is easier to weigh an invisible planet than to measure the force of heredity in a single grain of corn." But only one year later there were discovered laws which made this measuring of the force of heredity as feasible as the calculation of the strength of a bridge in advance of its construction. This finding was the rediscovery of the principles of transmission of hereditary traits worked out by Mendel thirty-four years before. No adequate account of Mendelism can, of course, be given in the short space available here, and the student who is interested should read it up in the more specialized accounts.² We shall give only a brief summary of the laws.

Determiners.—Traits are not passed down as such but only in the form of "determiners" in the germ plasm. The fertilized ovum, or zygote, has all of its determiners in pairs, one member of each pair coming from the male, and the other from the female, parent. Inasmuch as each parent, too, has received determiners from a dual source, and hence has them paired, though segregated into different cells, there are always four possibilities of combination in the case of the

¹ See Guyer, *Being Well Born*.

² A good popularly written one is to be found in Guyer, *Being Well Born*; a still simpler one is in Jewett, *The Next Generation*, the former published by Bobbs Merrill and the latter by Ginn and Co.

offspring, as the following illustration will show (one germ cell coming from each parent).



Thus suppose that the forms in question are Andalusian fowls and that A in the male and B in the female are determiners for white feathers while A_1 and B_1 , are respectively the male and female determiners for black feathers. Then in case 1 both determiners will co-operate to produce a white fowl and in case 4 both will co-operate to produce a black one. In the other two cases they will oppose each other and will produce a blue (speckled) offspring. And this same proportion would tend to hold no matter how large the number of progeny; one-fourth, on the law of statistical averages, would be white, one-fourth black, and one-half blue.

Student make calculations from other hypotheses about combinations of determiners in parents.

Carriers.—In many, if not in most cases, however, the two determiners with respect to any unit character do not equally assert themselves and produce a trait intermediate between those of the parents. One determiner outweighs and masks the other. In that case the former is said to be *dominant* and the latter *recessive*. For this reason it may come about that potentialities for certain traits are carried by persons who do not themselves exemplify the traits, though being capable of passing them on to children who will manifest them. These *carriers* of hidden traits are eugenically of the most profound significance, since they can be detected only by a study of the history of the individual. Suppose,

in our above illustration, A and B are black-eyedness, and A_1 and B_1 are blue-eyedness in human beings, the former being dominant and the latter recessive. Then case 1 will give pure black-eyed stock (duplex black-eyed), case 4 will give pure blue-eyed stock (duplex blue-eyed). Cases 2 and 3 will give a combination of blue-eye and black-eye determiners but, since black-eyedness is dominant, these two cases will show only black eyes, the blue-eyedness being dormant. Yet these two simplex cases will be capable of passing down blue eyes to future generations, which will manifest themselves whenever the opportunity permits. This proportion holds true for any number of descendants. On the average one in four from two simplex parents will be entirely free from the recessive trait, and free from the possibility of transmitting it; one in four will have the trait in duplex form and show it; one-half will carry the trait and be capable of passing it on to half their descendants, but will not themselves show it.

Some hereditary human defects are inherited as recessives and others as dominants. In the former case they will behave like blue-eyedness in our illustration; in the latter case, like black-eyedness.

Let the student replace blue eyes with feeble-mindedness, idiocy, albinism, tendency to tuberculosis, and deaf-mutism. Replace black-eyedness with digital malformations, congenital cataract in the eye, Huntington's chorea, and muscular atrophy. Make different hypotheses about the combination of determiners in the parents. Particularly, trace out the case where one parent is duplex pure stock and consider the possibility of breeding out defects.¹

Seriousness of the Problem.—Of course we do not yet know many important details about heredity. We do not know with sufficient certainty which traits behave as recessives and which as dominants. More important still, we do not know very much about what traits are unit characters and what ones are complexes. But, on the whole, we know enough

¹ See Guyer, page 118.

to enable us to make great remedial use of our knowledge. Under these circumstances it would seem inexcusable if we left matters of race reproduction to drag on and care for themselves just by accident. Yet to a large extent we are still doing that very thing. The consequence is that, instead of crowding out defectiveness by stopping it at its source, it is progressively gaining ground upon us. Between 1859 and 1901 the number of officially known lunatics increased from one for each 536 individuals of population to one for each 301; in Ireland between 1851 and 1901 the increase was from one for each 657 to one for each 178. According to the special United States census of 1903, covering a period of fourteen years, the general population had increased 30 per cent; but the number of insane in public institutions, 100 per cent. Of course a part of these increases is due to better methods of locating defectives, and of taking official cognizance of them; but alienists seem to be agreed that the total amount of mental defectiveness is increasing beyond what improvement of methods of classification would account for.

When more than half of the inmates admitted to the insane asylum are married—as was shown to be the case with 574 patients admitted to the Northern Hospital for the Insane in the State of Wisconsin during 1908-9—and when these irresponsible defectives reproduce their kind much more rapidly, on the average, than normal parents do, it is not in the least surprising to find mental defectiveness on the increase. In 1910 there were more insane in our institutions in the United States than there were students in all of our colleges, and the cost of maintaining these was some hundred million dollars annually. To this monetary cost must be added the cost in human happiness chargeable to this pathetic type of illness. And yet mental defectiveness is only one of the forms of defectiveness passed down by heredity. Surely the possibility of holding the human race to the level it has attained, or of lifting it to a higher level, through more intelligent selection of stock is no mean possibility.

Methods of Checking the Transmission of Defectiveness.

—*Segregation.* Several methods for checking the transmission of defects have been proposed. Naturally we think first of legal restraint. The simplest and surest of such legal restraints is segregation of defectives in institutions. But the cost of this method is very great. Of course we need to segregate the dangerously insane, and many of the economically helpless—for other than eugenic purposes,—and race betterment comes as a by-product from this. But eugenic considerations would compel us to segregate not only the violent and the helpless, but also those whose degree of defectiveness would allow them to be still economically self-supporting, and even those who themselves show no defects but who are carriers of bad potentialities in their germ plasm. The great cost of segregating all of these, and especially the hardship of confinement for those who show in their own persons no fault while being capable of transmitting faults to children, will probably always make this method ineffectual in practice as a means of eugenic control.

Regulation of Marriage.—Laws forbidding defectives to marry are a second measure. A number of states already have such laws—in fact practically all of them so far as the grossest defects are concerned. They provide for refusing marriage licenses to those who are obviously defective mentally. Also many states have laws prohibiting the marriage of persons of the white race with negroes or with other colored races, and most of them forbid marriage between near relatives. But these laws rest on insufficient grounds as far as race betterment is concerned. They do not take account of the difference between defects that are transmissible by heredity and those that are not. They do not take cognizance at all of the possibility of carrying defects as recessive traits. And in so far as they draw consanguinity lines (blood relationship) they do not rest on eugenic considerations at all, since there is no harm physically in the intermarriage of near relatives.

Besides even such laws as we have are never effectively enforced. Guyer says:¹

"The utter inefficiency of the first proposition, namely the enactment of laws restricting marriage, at least as regards the socially unfit whose condition is based on impaired mentality, has been demonstrated time and again. If they are forbidden marriage, they merely have children without getting married. Most states have laws to prevent the marriage of such individuals, but these laws are almost wholly ineffective in preventing procreation on their part. We might as well recognize once for all that in such cases nothing short of close custodial care or sterilization will accomplish the end sought."

Sterilization.—A third means is artificial sterilization. This is much cheaper than segregation and allows personal liberty in many more respects. It is a much simpler process than is ordinarily supposed. In males it takes the form of *vasectomy*, which involves severing each sperm duct, or removing a portion of such duct. It is a minor operation which impairs normal sex functioning in no other way than to prevent procreation.²

A few states now have laws providing for sterilization, but they are very poorly enforced. Most of them, too, are only penal, rather than eugenic—that is, individuals are sterilized on account of sex crimes rather than on account of unfitness to produce offspring. To make of sterilization a eugenic measure we would need to apply it to all who can transmit unfortunate traits to posterity, whether themselves defective or only the carriers of defectiveness. Evidently sentiment would not yet sanction so comprehensive a program as a matter of legal compulsion. If used as a method of control, it must be chiefly on a voluntary basis on the part of those who have been convinced of the social desirability of its application to them personally.

It is also objected that this method would favor sex immorality and the spread of venereal disease. Evaluate this objection.

¹ *Being Well-Born*, page 315.

² See Guyer, *Being Well Born*, page 322.

Voluntary Restraint.—The best available means is obviously voluntary restraint from parentage on the part of the defectives or the carriers of defectiveness, and toward their willingness to practice this we must bend our educational efforts. Traditionally this restraint has taken the form of voluntary celibacy. This is a noble and heroic sacrifice on the part of those who give up companionships that would be dear to them for the sake of the good of society. But another method that is worth consideration is marriage after voluntary sterilization. Only the mate who is eugenically unfit should be sterilized, since there is always the possibility of a second marriage on the part of the other. The married relation could be normal except for the expectation of parentage, and recourse could be had to the adoption of children. However, this matter should be clearly understood in advance by both parties and its implications fully considered. But no dependence should be placed upon anything less than sterilization. Experience has abundantly proved that no mere good intentions can be relied upon to prevent married defectives from having families, and often large families.

Regulation of Size of Families.—Considerations of the welfare of society should regulate the size of families as well as the question of matings. The eugenically and economically fit should feel it a patriotic duty to produce at least enough offspring to perpetuate their kind. Guyer estimates that this will require four per fertile family; Cooley estimates that it will require at least four children for each pair and probably five. We need to direct our educational efforts toward inculcating the ideal of this sort of service as equal in importance and dignity with any other form of service to the state. At present there is no doubt that the higher classes are, as a whole, shirking this responsibility for reasons of merely personal convenience. Correlatively we need to direct our educational efforts toward inducing other parents to keep down the size of their families to such limits as the greatest social good recommends. There can be no doubt that certain un-

desirable classes impose a constant burden on society by reason of the prodigality with which they produce. M. Jaques Bertillon¹ showed that the size of families tends to vary inversely as the economic status of the parents, as the following figures show:

TABLE SHOWING RELATION OF ECONOMIC STATUS TO SIZE OF FAMILIES IN THREE EUROPEAN CITIES. NUMBER OF BIRTHS PER 1,000 WOMEN BETWEEN AGES 15 AND 50

	VERY POOR	POOR	WELL OFF	VERY WELL OFF	RICH	EXCEPTION- ALLY RICH
Paris	108.....	95.....	72.....	65.....	53.....	34
London	147.....	140.....	107.....	107.....	87.....	63
Vienna	200.....	164.....	155.....	153.....	107.....	71

It does not, of course, follow that because certain parents are poor they are eugenically unfit; yet, on the whole, the fact that certain persons have ascended into the upper economic strata does show that they belong to strains capable of succeeding in the struggle of life. It has been shown that the more fortunate social classes exceed the lower classes by as much as five inches in height on the average at certain ages and twenty pounds or more in weight, and that they exhibit in the mental tests a higher intelligence quotient. So the greater fecundity among the lower classes does undoubtedly constitute a social problem. It is no blessing to the parents, the child, or the state for economically submerged and unfavored groups to have more children than they can adequately care for.

Knowledge of Means of Birth Control Needed.—But it will do us little good to inveigh against large families on the part of persons who should not have them, so long as society maintains its present prudish attitude toward educating them in proper means of control. Those who have information are forbidden by law to pass it on to others, except surreptitiously, when they ought to be compelled to do so. Of course it is

¹ Quoted by Chatterton-Hill, *Heredity and Selection in Sociology*, pp. 326-8.

generally implied in this prohibition that those who are expected to restrict offspring should maintain continence except where children are definitely intended. But no one will make that proposal except either hypocritically or out of a Quixotic ignorance of the world. It is not a reasonable expectation for the rank and file of people. Besides it would probably not be ethically or sociologically desirable even if feasible. Every married couple should be given, at the beginning, the information, as well as the ideals and perspectives, necessary to put the control of births in their own hands—abortion, of course, not being here in question. This training might be made accessible in printed literature or, better, might be a part of a "continuation school" course for newly married couples.¹ It would be desirable to cultivate sentiment in favor of giving such instruction, provided the right sort of ideals were worked for along with it; and it is with the hope of contributing a little to such sentiment that these lines are written.

What would be the advantages of making such information accessible to all married people? The dangers? Could enough women be trusted to undergo the hardships of childbirth voluntarily? How many of them now show that willingness? Is it anyway desirable to use as stock those who lack the courage and the ideals necessary to make this sacrifice? How would making birth a matter of purpose rather than chance affect the birth rate among the higher classes? The middle classes? The lower classes? The average population? What are the advantages and disadvantages of an increasing population over against a stationary one or a slightly decreasing one?

The Positive Side in Mating.—In what was said above regarding mating, the importance of avoiding a eugenically unfit mate was almost exclusively stressed. That is the negative side only. The positive side is just as important and more cheerful. Just as one, in choosing a mate, should avoid defects so he should value merit qualities—a high order of intelligence, special mental talents, valuable traits of personality,

¹ See chapter VI on the *Cold Storage Principle in Education*.

desirable physical features, etc. These are transmitted as surely as are defects. In fact on both the positive and negative side our matings should be much more largely eugenic than they usually are. It is certainly working against the current to be continually pushing to raise the race to a higher level by education when we allow heredity to be continually pulling in the opposite direction.

Love and Eugenic Matings.—But what becomes of love in eugenic matings? Must one not love whom the Fates decree? And must one not marry the person whom the Fates thus decree one shall love? *That* one shall love, the Fates—that is, nature—have decreed. Biological forces beyond our control see to that. But *whom* one shall love is simply the result of the accidental association of ideas. A fundamental instinct impels each person to the construction of love dreams; accident brings it about that a particular woman shall begin to get interwoven into these. One then permits himself to play with this idea. The thought of his lady calls up visions of future home and fireside and endearing experiences. Conversely the love impulse calls up and centers upon this one image. All tender song and story and picture bring in her blessed memory. And thus a body of highly emotionalized ideas and recollections get bound together with irrefragible ties. This body of associations, made dynamic by a fundamental biological impulse, is love. This description makes evident how love can be controlled: one must not allow the associations to begin; one must not permit himself in the beginning to entertain the idea of an undesirable person as a possible mate. If he allows himself to play with the idea, forgetting for the moment the inadmissibility of the outcome to which it points, or possibly seeking excuses which would seem to qualify that inadmissibility, he may find himself so inmeshed shortly that the thought will be difficult to dismiss, and he will seem to be led along by fate toward the tragic climax. Only a fool permits himself to fall in love with an impossible mate.

This is the negative side. Is it equally possible to control love on the positive side? Do eugenic demands require more than negative control? Suggest methods for breaking up unfortunate associations that have once been firmly fixed. Is there any reason why a eugenically desirable marriage should be less a love match than any other?

II. FAMILY'S CONTRIBUTION TO DIRECT EDUCATION

Magnitude of the Home's Contribution.—Not only does the family affect the strength of the individual and the progress of society by selection of stock, as discussed above, but it also makes a tremendous contribution to direct education. No other institution outside the school, and possibly not even it, makes a contribution equal to that of the family. It is in the home chiefly that the child learns his language. Here a wealth of literature is handed down—fairy stories, folklore, songs, snatches of history. It is through this channel largely that our basic moral traditions are passed on, our fundamental hygienic ideas and habits, our tastes, interests, prejudices, and biases. Here the fundamental attitudes toward economic life are caught and the child gets his first training in industry. Here ideas and ideals regarding domestic life and a thousand other ideas, ideals, and habits are nurtured. It would be possible to get along with only the education the home can give—indeed nations have got along and become great with only this—but it would not be possible to get along without it.

Unconscious Home Education.—The education given by the family is not all conscious and intentional. The larger part of it is due merely to the associations in the home. We have previously pointed out how large a part imitation, suggestion and sympathetic radiation play in molding character and shaping ideas. These play an extraordinarily large rôle in the case of the family. Nowhere else is the child influenced so much by suggestion and social radiation as he is in the home. Hayes points out several reasons why this is true:

1. *The naïveté and suggestibility* of the child. He has no experience with which to oppose any ideas that are thrown

before him; hence he automatically accepts them. The credulity with which a child credits, as evidenced by his satisfied "oh," the fragmentary, impatient, or even jokingly false, explanations given to him by his elders is really pathetic.

Consider further the relation of lack of experience to suggestibility, applying it to adults.

2. *The Principle of Repetition.*—The same ideas and attitudes are expressed over and over in the course of a year. What the parents are fundamentally, will be continually coming out in one way or another, and impinging repeatedly on the consciousness of the child. Repetition is always a big factor in giving potency to suggestion and with a subject so plastic as a little child it could not well be anything else than ultimately compelling.

Illustrate with language, table manners, ebullition of temper, moral ideas, etc.

3. *The Principle of Prestige.*—Normally no other person has the confidence of the child so fully as the father and mother. To the little tot there is no limit to the strength and wisdom of the parent. The boy's final appeal in an argument is often, "I guess my father said so, and he knows." The father's politics is usually adopted by the son, and daddy's occupation is a source of pride to the youngsters. This prestige gives tremendous weight to any moral or other teachings the parents undertake to give their children, but more particularly to the examples they are constantly, though unconsciously, setting.

To what extent does the prestige of the teacher overshadow that of the parents after the child starts to school? Is parental prestige equal in all families? What are the factors that strengthen or weaken it?

De-Education in the Home.—But conditions in the home may be de-educative as well as educative. The family's con-

tribution is often one the school must combat rather than utilize. To break up the unfortunate habits of English expression caught in many homes is one of the hardest tasks that confronts the teacher. There are also frequently from this source social and religious cynicism, hygienic superstitions, false economic ideas, and bad literary and musical tastes that must be counteracted by the school and replaced with better ones. The same forces that give power to the healthy educational contribution of the home also give power to these unhealthy ones.

Illustrate the difficulty of overcoming the bad influence of the home in respect to language, moral and economic attitudes, etc. Are these attitudes inherited or acquired?

Conscious Educational Contribution.—Not only, however, does the family make a large unconscious contribution to education but also a large conscious one. The parents attempt explicitly to teach the children many things.

1. *The forms of courtesy*—saying “how-do-you-do,” “good-bye,” and “thank-you” when appropriate; using the knife, the fork, and the spoon properly; not asking for a second piece of pie or taking the last piece of cake; proper modes of dress; appropriate conduct in courtship; and very many other things.

2. *Training for domestic life*—cooking, sewing, laundrying, home decoration, for girls; gardening, keeping chickens, repairing fences, for boys. Often these things are very poorly taught in the home, it is true, but certainly this home teaching is better than none.

3. The *literature* supplied by the home is a big factor in the education of the young. The bed-time story is a tremendous force in molding the thoughts and ideas of the very young. The magazines subscribed for, the books bought or borrowed—over which the parents have supervision—are just as great force with the older.

4. The *religious nurture* of the child is largely a family

function. In the great days of the Hebrews and the Romans it fell almost exclusively to the family, and in our own past the family altar and the grace-at-table, as well as the explicit religious instruction of the children, were important affairs in the life of the child. They play at present not nearly so large a part, but even yet many homes make incalculably great contributions to the religious nurture of the youth.¹

5. All homes give more or less instruction to children in respect to matters of *sex and morality*, a few performing this difficult but important task admirably, but most neglecting it.

6. The *play and entertainment* that the home provides for the child is a great factor in his social education. Fortunate indeed is the lad whose parents take the trouble to play games with him, to invite other children in to play with him and to afford them good facilities, and to allow the chap to give parties to his friends and to attend such parties when given by other children.

7. The home still does some *training for industry*. This is considerable in the open country and in a few city vocations, in which the youth is given a chance to work along with father or mother and learn the tasks. In most city callings, however, the opportunities for doing this are slight, especially for the boy. In such cases the instruction may extend no further than a little vocational advice and the encouragement of the child to earn a trifle of pin money by selling papers.

Are all homes within essentially the same geographical situation alike in the contributions they make to the education of the child? Or do some do much more than others? What sort of study of these home differences must the schoolman make if he is economically to articulate the educational efforts of the school with those of the home? Could the school begin where the home leaves off in the case of individual children? Could it in the case of type groups?²

¹ For an excellent discussion of this problem see Cope, *Religious Education in the Family*, The University of Chicago Press.

² See Snedden, *Digest of Educational Sociology*, pages 96-97A.

The Family and the Education of Adults.—Not only does the family train its children; it also molds its adult members. Before marriage a man and woman can govern themselves largely by their own caprices—within the limits of the law, of course. But when people marry they are inevitably socialized by the new group life. Each must practice inhibitions not called for previously. One must accommodate oneself to the rights and interests of the mate as well as to one's own. Not only this, but one must face new economic responsibilities and new responsibilities involved in the rearing of children. These group pressures normally reshape one into a considerably different individual from what one would be if standing alone. Not only in respect to the initiation of the young, but also in respect to the making of the older, no other institution is so effectively socializing as the family.

New School Obligations.—The division of functions between the school and the home can no longer be just what it was in the past. That is due alike to changes in the home, to changes in the character of society, and to changes in the school. We are face to face with new and bigger problems educationally than were our fathers before us. Conditions of life demand that more be taught than formerly and fortunately we also have more to teach. No longer can the situation be adequately met while the school maintains a detached and academic attitude. There must be a realignment of the practical functions that once, in the meager way in which alone we knew how to handle them, fell to the home. In this realignment the school must take over in part at least—as it has now for some time been taking over in many places—a number of new functions, among which are such as the following:

1. Domestic training—cooking, sewing, home decoration, household management, preparation for the care and training of children, the ethics of married life, etc.
2. Industrial, and other vocational, training and guidance.
3. Recreation and physical training (*Why?*)

4. Supervision of out-of-school occupations, as home gardening and home chores (*Why? How?*)
5. Pupils' home reading (*Why? How?*)
6. Moral and sex education.

III. THE HOME CO-OPERATING WITH THE SCHOOL

Need for Co-operation.—But maximum headway can be made only when the home and the school co-operate. The educational contributions that these two make must supplement each other, not blindly duplicate nor leave gaps which each expects the other to fill. The former mistake is often made in respect to direction of social activities, especially parties, and the latter in respect to ethical, and particularly sex, education. The efforts of these two great educational agencies should fit together as two sides of an arch. Such co-operation will necessarily involve:

1. That the school take account of the training the child receives at home, and begin where the latter leaves off.

How can this be administered? Grouping according to home training? Excusing from class recitation pupils who bring from home certain elements of training while those features are up for school study? Extra courses or assignments for those who are defective on account of lack of home advantages? Short unit prescriptions for all? Or how? How shall we find out what pupils bring from home? By visits to homes? By observation of children? By tests? If by tests, what kind? By deductions from what are believed to be general characteristics of type groups?

2. That the school keep the home advised as to how the parents can assist the school in habit building—as breaking up the incorrect speech habits of the street, forming habits of hygienic living, etc.

How can this be administered? Illustrate how it would work out with several examples. What difficulties would be encountered?

3. That the school secure betterment of home conditions in such matters as food, ventilation, clothing, sanitation, etc.

How—letters? Visits? Visits by nurses? Would such efforts be resented as meddling? Why are they necessary?

4. That the school and the home work together as to the total out-of-school and in-school program of the child—including parties, music, study, etc.

How? Illustrate what happens when they do not work together.

5. That the school co-operate with the home in supervising home projects, often giving school credit for them.

Look up the methods of administering home projects and the giving of school credit for home chores.

6. That the two work together to conserve the health of the child.

How is medical inspection, with home responsibility for treatment, related to this?

7. That parents so deal with their children as to strengthen, rather than destroy, the prestige of their teachers, and that teachers similarly uphold the prestige of parents.

Cite instances where the opposite happened and their consequences.

The Mechanism of Co-operation.—The machinery for thus keeping home and school together will consist of such means as:

1. *Parent-Teacher Associations.*—The parent-teacher association is the school's right arm, if properly handled. But it must be controlled by responsible persons, else it may become a forum for cranks who undertake in their ignorance to dictate to teachers and school boards. Schoolmen should have the controlling voice in determining its policy. There should be a lay president, but the chairman of the program committee should be the principal of the school. If rightly handled the association can be a very valuable means for getting teachers in touch with the problems and the viewpoint of parents and

for systematically getting before patrons the problems and the policies of the school.

Illustrate the services such association can render. Also illustrate the dangers involved in an irresponsible association.

2. *School exhibits*—of drawings, essays, products of the manual training shop, sewing, canning, etc. These seldom fail to challenge the admiration of parents and to counteract the tendency of adults to think that schools are not now as good as they used to be.

3. *Visiting Days for Patrons*.—Parents who will not come to the school on their own initiative, will sometimes come in response to a special visiting-day invitation. There might be a number of such days each year, on each of which a different group of individuals could be especially invited.

What values, inconveniences or dangers do you see in this?

4. *Teachers' visits to homes of pupils.*

Primary school teachers seem to do much more visiting than teachers of older pupils. Why? Should such visits be insisted upon for elementary school teachers? Why? For high school teachers? Why?

5. *Visiting nurses.*

Of what special value are their visits? How welcome are they in the home?

6. *Full and frequent reports to parents.*

What kind of reports? To what extent statistical and to what extent personal? How administered?

7. *Co-ordinating Teachers for Home-Project Work*.—This scheme is used in the week-about form of industrial training, and teachers are employed in agriculture, often, for the whole year and are required to spend a part of their time supervis-

ing the home projects of the pupils. The same principle might well be extended to domestic science, and to many other forms of educational work where the practical activities can best go on outside of school.

Propose in detail a practical plan by which this could be carried out in a course in cooking; in home decoration.

PROBLEMS FOR RESEARCH AND DISCUSSION

1. From the Special Report of the Census Bureau list the most frequent causes for divorce. Analyze each of these so as to get at the more specific causes which probably lay back of the alleged ones. How many of these might be combated by the right sort of education?
2. From this same report, or from surveys, determine the relative number of divorces in rural districts as compared with city districts. Interpret these results. Aside from the question of divorce what differences do you find between city and country in respect to the solidarity and socializing power of the family?
3. Let each member of the class trace back the ancestry of one or more mental or physical defectives. So far as these cases go what generalization would they justify regarding the proportion of defectiveness that is due to heredity?
4. Look up the legal restrictions on marriage (U. S. Census report cited above) and estimate their potential effectiveness in preventing eugenically improper matings.
5. From an average of the estimates of the several members of the class estimate how many persons in a hundred remain childless because they believe themselves eugenically or economically unfit to be parents. Likewise estimate the proportion who remain voluntarily childless in spite of the fact that they are eugenically and economically fit. Compare the two estimates. Also compare these estimates with the questionnaire findings of the Bureau of Social Hygiene.
6. Make out a distribution table of homes with various sizes of families, classifying them by races and otherwise. How many have families above, and how many below, the four or five necessary to maintain the stock?
7. Find out what proportion of the members of the class learned at home at least two-thirds of the folk stories they know; their moral ideas; their music tastes.
8. By a questionnaire study, and from a study of school reports, find out what is the practice and the success of giving school credit for home work.

9. Ascertain the character of the typical report on individual pupils sent by the schools to parents. Would any extension of it be desirable and feasible?
10. Get together the courses of study for the grammar school and high school of eight cities a generation ago; compare these with the present courses of study in the same cities, and see what training the modern school has taken over that, a generation ago, was left to the home.

REFERENCES FOR FURTHER READING

- BLACKMAR AND GILLIN, *Outlines of Sociology*, revised edition, chapters VIII and IX.
(A good general chapter on the family.)
- CHATTERTON-HILL, GEORGE, *Heredity and Selection in Sociology*.
(Whole book is devoted to discussion of the theory of descent, pathological factors militating against progress, and forces that make for race betterment.)
- COOLEY, C. H., *The Social Process*, chapter XXI.
(Discusses problem of propagation in relation to poverty.)
- DEALEY, J. Q., *Sociology, Its Development and Application*, chapter XV.
(A short chapter mostly genetic in treatment.)
- COPE, H. F., *Religious Education in the Family*.
(A well-written volume discussing the whole problem of religious education in the family.)
- ELLWOOD, C. A., *Sociology and Modern Social Problems*, chapters 6, 7 and 8.
(Interestingly written account of the history, present status, and problems of the family.)
- GOODSELL, W., *The Family as a Social and Educational Institution*.
(Good single volume treatment of the past, present, and future of the family.)
- GUYER, MICHAEL F., *Being Well Born*.
(A very readable scientific treatment of the problem of eugenics.)
- HAYES, E. C., *Introduction to the Study of Sociology*, chapter XIV.
(A good single chapter discussion of eugenics.)
- HOWARD, G. E., *A History of Matrimonial Institutions*, 3 volumes.
(Devotes most of space to comparatively recent times. Supplements Westermarck's book in this respect.)
- KELLCOTT, WM. E., *The Social Direction of Human Evolution*.
- KIRKPATRICK, E. A., *Fundamentals of Sociology*, chapter 15.
(A general chapter on the family in a volume intended primarily for teachers.)

- LICHTENBERGER, J. B., *The Problem of Divorce*.
(Scholarly and valuable monograph.)
- MEAD, A. R., "Functions of Parent-Teacher Associations," *Educational Administration and Supervision*, Vol. VIII, pages 503-6.
- MOORE, M. E., *Parent, Teacher and School*, Part I.
(Relation of parents to school, including parent-teacher associations.)
- PINTNER, R., *Intelligence Testing*, chapter XX.
(On the inheritance of intelligence.)
- POPENOE AND JOHNSON, *Applied Eugenics*.
(A good recent discussion of eugenics.)
- ROSS, E. A., *Principles of Sociology*, chapter 49.
(Disintegrating factors affecting the family and means of combating them.)
- , *Changing America*, chapters 3 and 4.
(Discusses the falling birth rate and the significance of increasing divorce.)
- SMITH, WALTER R., *Introduction to Educational Sociology*, chapter 4.
(Discusses changing status of family and new demands upon the school.)
- SNEDDEN, DAVID, *Educational Sociology*, chapter V.
(Degenerative and progressive tendencies, educational implications.)
- THWING, CHAS. F., AND CARRIE F., *The Family; an Historical and Social Study*.
(Chapter XI, "The Family Destroyed" is especially good.)
- TODD, A. J., *The Primitive Family as an Educational Agency*.
(The character of the early family and its contribution to the education of children.)
- WELLS, H. G., *Mankind in the Making*, chapter on "Problem of the Birth Supply."
(Brilliantly written chapter opposing the idea of selecting stock. Written twenty years ago.)
- WESTERMARK, EDWARD, *The History of Human Marriage*, 3 volumes.
(A great and scholarly work. Devotes most of its space to very early society.)

CHAPTER XI

THE CHURCH AS AN EDUCATIONAL AGENCY

The Psychological Roots of Religion.—Doubtless one of the psychological roots out of which religion sprang historically was curiosity about the operations of nature, developing into wonder, admiration, and reverence and giving rise to many myths in early times and to both exalted gratitude and theological defenses in modern times. But apparently the forces that were most vital and dynamic in shaping ceremonials and creeds were hope (aspiration, idealized selfhood) and fear, and the entities of religion were chiefly the result of the objectification of these fears on the one hand and ideals on the other. At first these fears and hopes were very vague and inarticulate—the former being only transient resentments against objects that impeded one's progress and the latter the feeling of hilarity as one recalled vividly to mind the objects of his desire through a mimetic dance imitating the actions of grain, game birds, or enemies in his power. But these vague fears and hopes got progressively crystallized into definite and relatively permanent concepts by the sociological forces of suggestion, imitation, and other forms of communication. Out of fears arose the concepts of malicious dwarfs, dragons, devils, and all sorts of other malignant personalities. Out of objectified ideals came the benevolent deities, who possessed the powers over nature, over evil spirits, and over the accidents of life, the powers that men longed for but could not attain. These gods—the great gods—became, and still remain, what men would, but cannot, be.

Interpret in these terms heaven in the various religions; Jesus as the perfect man; a Luther whose faults have been forgotten; a Washington, a Lincoln, and a Roosevelt whom the passing of time has touched up

into absolutely perfect citizenship and endowed with the strength and wisdom of demi-gods. In terms of objectified fears explain Satan, the Fates of Greek mythology, witches, and evil charms.

Fear and Magic in Primitive Religion.—In the early history of peoples the major concern of religion, and of religious education (indeed almost all education in early times was religious), was so to direct the actions of men that they might ward off the machinations of the malevolent deities. The unfriendly gods had to be appeased at any price, even though the friendly ones must wait awhile for their satisfaction. Besides, the friendly ones, too, were generally only on a sort of truce, which truce was likely to be broken if there were the slightest error in the ceremonies with which they were approached or their affairs dealt with. "If, in the repetition of a Brahmanic mantra, the slightest mistake is made, either by omission of a syllable or defective pronunciation, the calamity which it was intended to bring down on an enemy will inevitably recoil on the head of the repeater"; and when Uzzah reached out his hand to steady the ark of Israel lest it fall, he was stricken dead because he happened not to be a Levite.

Hence arose the fear of doing anything in any other than the accustomed way,¹ the studied precision in ritualistic ceremonies, the elaborate purification rites, and the excessive adulation in prayer. Precisely the right name of the deity, and the correct formula, had to be used in addressing him. If you knew his exact name and used it, you had thereby a magic hold on the god, and could compel him to grant your wishes; if you missed it just a little, he had the hold on you and would make you smart for your impudence. To read or to listen to the prayer of a primitive man one would think he is molten with love and adoration for his god, so extravagantly adulatory are his words. As a matter of fact what he is often doing is deliberately flattering the deity with the hope that he can thereby win favor. And from this primitive source is our

¹ Why the opposition to *new* ways of doing things? See Peters, *Human Conduct*, pages 68-72.

modern scrupulosity about orthodoxy in belief, our emphasis upon correct observance of religious rites such as baptism, and our wordiness and conventional phraseology in prayers.

Development of the Hope Side.—But as civilization advances the second basis of religion becomes relatively more prominent and the first tends to wane. The emphasis is shifted from fear to hope and idealism, and hence from creed and ceremony to service. This idealism, at first individualistic (hope for punishment of enemies, for heaven, for comfort from God, for personal salvation) gets progressively universalized until it culminates in a striving for the universal brotherhood and the general uplift of mankind—a state denominated by Jesus “the Kingdom of Heaven.”¹ In this higher stage of religion, fear (and hence scrupulous care about creeds and ceremonies) has almost entirely dropped away and the force that holds religious men together is sentiment—“such sentiments as justice, kindness, liberty, and service.”² This religion of dynamic idealism is potentially the most powerful engine for social control in the direction of the higher things of life that civilization has evolved.

To what extent does this describe religion as it actually is in the churches rather than as it must be if it is to be a significant element in advancing civilization? Evaluate the efforts and the successes of the church toward keeping alive a dynamic and functioning idealism. Is this idealism sincere? Virile? Practical? Broad minded? As many-sided as the life it should sustain? Cultivated by a pedagogy adapted to bringing the largest and most lasting effects rather than only transient ones?

Persistence of the Magical.—But we have always found, find still, and probably always shall find, both the lower and the higher phases of religion present together. For in the earlier stages fear was, because of biological and sociological reasons, a quite necessary trait of human nature, and a large degree of its presence in religion was inevitable. And now, when fear

¹ See Peabody, *Jesus Christ and the Social Question*, pages 285 ff.

² Hayes.

is no longer so readily excusable, the church gathers in a very large mass of men who are not essentially religious but who are drawn in chiefly by convention or out of considerations of personal advantage, either mundane or celestial. (*True?*) These men lack independence and initiative, are captivated by the prestige of the prophets whom all are praising, and hence lay hold upon the more external and tangible expressions and actions of these prophets but miss their inner spirit. These externals they slavishly imitate and transmit to others, building up irrefragible taboos against any deviation from them, thus preserving the husk but losing the kernel. These essentially non-religious men, legislating for organized religion, keep it weighted down with the burden of an artificial past—a burden from which those of the “hope” class (the constructive prophets) are continually trying, with only partial success, to free the institution.

Is this generally true of the followers of a prophet? Consider as illustrations the admirers of Cicero in early mediæval scholarship, the “foreign-entanglements” advice by Washington, and the pedagogical theories of Froebel and Pestalozzi. Who are the theological heresy hunters—those persons with the deepest religious experiences or those who are only verbally “keepers of the faith” and who have often themselves a secret fight to maintain their convictions?

RELIGION AND EDUCATION

Early Dominance of the Church.—Historically the church—that is, organized and institutionalized religion—occupied a very important place in social control through education. In early times the first systematic educational efforts, other than those of the family, were conducted under religious sanctions and with the machinery of organized religion. Note, as examples of this, the early initiation ceremonies, schools for the priesthood incidentally admitting outsiders, priests or “philosophers” as advisers of the people, the religious castes as sources of supply of teachers, etc. Early subject-matter was, too, almost exclusively ethical and religious. Voca-

tional training was acquired through apprenticeship and by imitation, while military training was by practice conducted under the state—neither being ordinarily viewed as a part of education.

State Assumption of Control.—But as states developed, and came more and more to exercise a telic function, they naturally assumed progressively the control of the telic agencies necessary for the direction of the forces of life upon which their service to their citizens, or even their right to exist, depended. Among these telic agencies education occupied a prominent place, and the state wrested it gradually from the church. But there are still many evidences of the tenacity of the church's hold upon general education, as witness the connection of Religion and Education in a single State Department in certain countries, the long survival of the laws and the customs of placing schools under the inspection of the clergyman, and the many private church schools and colleges that still persist alongside of our public school system.

From the point of view of the state, what are the dangers involved in keeping control of education in the hands of the church, or of any other private organization?

Division of Educational Functions Between Church and State.—But we have at last taken all general and technical education out of the control of the church.

In what sense is this true of the remaining church schools? In what way does the state control by law what they shall do? In what way does it influence private schools by the definition of standards and by offering privileges under prescribed conditions?

On the other hand, we have very definitely assigned to the church all education in formal religion and much of that in morals. However, it must be recognized that the public schools are not debarred from inculcating the spirit of religion in their pupils nor are they freed from the responsibility of doing so; and, in view of our conviction that the teaching of morals

need not rest upon the teaching of religion, as religion is conventionally understood, and in view of the evident need for more effective control of conduct through moral sanctions, the school is feeling itself responsible for the moral education of its pupils and is experimenting with methods of meeting this responsibility.¹

The Special Educational Function of the Church.—The educational function that remains for the church is:

1. *To supplement the moral education of the school*, and the general religious attitudes the school can develop, by appeals to sanctions not available to this institution. (*What sanctions?*) But the appeal to the "other-worldly" sanctions once relied upon is less potent in controlling conduct now than previously, and may be still less potent in the future.

Why? How would Jonathan Edwards' sermon, "Sinners in the Hands of an Angry God" influence the present generation? Are any effective sanctions left to the church? What ones? Would these, or would they not, be equally available to the public schools?

2. *To implant suggestions*, build up taboos, habits, attitudes of mind, etc., in the plastic period of life which will be favorable to religion in later life.

How is the religion of adults, as distinguished from their theological biases and ritualistic abilities, affected by their early training—advantageously or deleteriously? Under what conditions? What early impressions prove helpful and what ones prove harmful in the long run? Rousseau wished that *Émile* might grow up to the age of eighteen without ever having heard the name of God, so that he might mature his own ideas on religion without the distorting influence of any bias.² Evaluate this idea. Could such fundamental attitudes as are wholesome be developed by the public school as well as by the church, or could they not? Why?

¹ The writer has discussed certain problems of moral education, reviewed the methods of moral education, and given an extended bibliography on the subject, in his monograph, *The Selection and Organization of Materials for a Course in "The Control of Conduct" for Secondary Schools*. There is a very extensive literature on moral education.

² See the *Émile*, latter part of Book IV.

FOUNDATIONS OF EDUCATIONAL SOCIOLOGY

3. To serve as the "continuation school" for adults, who have no longer the assistance of any other educational agency of a systematic character at their service. This "further education" is, in practice, now largely restricted to ethical and theological topics, but there is no reason why it might not be made very much more inclusive. We have at present no adequate means for helping adults to meet intelligently the big social, political, and economic problems of the day. Might the church not constitute itself a continuation school for such function and, in its church service and especially in its Sunday school, discuss these matters in lieu of other topics in such a way as to afford its members adequately clear ideas regarding them? It is doubtless the distinctive function of the church to support and strengthen right conduct with dynamic ideals, but is it worthwhile for the church to undertake the building of *ideals* regarding social relationships until men have somehow and somewhere been guaranteed an opportunity to clear up *ideas* regarding them? After all, ideals, if they are not to be merely vapid, must start with definite ideas and make these dynamic through emotionalization. And if clear ideas are lacking as a point of focalization for idealization, the churchman will be merely working with the wind.¹

Indicate some social, political, and economic questions that the church might treat in this way. How handle them? How administer the work?

4. To keep alive a high idealism among men, afford dynamic to impel constantly toward the realization of worthwhile ends by supplying the current of social suggestion and radiation that prompt in that direction. Standing alone a man would almost inevitably be dragged down by the continual pull of prosaic forces. But the church periodically assembles idealistic persons under an idealistic leader with the quintessence of the world's idealistic literature, art, and music as aids;

¹ See the writer's article in the *Pedagogical Seminary*, volume 28, pages 369-81.

and thus it nurtures and reinforces the potentially wavering idealism of its members. Such power-house of idealism will always be absolutely essential for effective social control.

Is this a picture of the church as it really is or as it might be? In view of the unfortunate traditions that tend to throw the church off the track of this function and divert it into trivial discussion of dogmas and selfish efforts at self-perpetuation, is there hope that this function could be better performed by some other institution—say the Red Cross or one of the new societies for social reform, than by the historic church? If any such agency assumed this task of strengthening the practical idealism of men, would it thereby become the true church—that is, the real organ of religion?

5. "*To foster and focus the ethical opinions and sentiments of the community upon every question that has an ethical significance, as well as to organize practical activities in promotion of ethical aims.*"¹

What are illustrations of the church's part in such organization of public programs where ethical aims were involved? Was the liquor question one of them? Did the failure of the church as a whole to organize sentiment in favor of the League of Nations before it became a partisan political question, constitute a breach of this obligation? Give other illustrations, local or national, in which the church has or has not fulfilled this function. Are there any practical limitations to the extent to which the church should be expected to exercise this function? What shall be done regarding questions that are yet in the controversial stage? Are there any real questions that are not more or less in a controversial stage? Is there any danger of intolerance toward harmless, or even positively good, movements? Cite historical instances. Will pioneering in its early stages be helped or hindered by this?

6. Shall we consider it a sixth function of the church to *organize a wholesome social and recreational life for the community*? Why the church rather than the school or the state?

Consider the historic fact that most social institutions of complex purposive character had to be instituted by charity and proved ef-

¹ Hayes, *Introduction to the Study of Sociology*, p. 687.

fective before public agencies were willing to take them up, and recall the church's part in this kind of philanthropy. Universities, colleges, primary schools, kindergartens, vacation schools, school lunches, etc., were first supported by the church. Of what might the social and recreational activities of the church consist in the city? In the village? In the open country? What administrative machinery would be required and at how much expense?

What is the educational value (social, recreational, cultural) of such organizations as: Knights of King Arthur, King's Daughters, Mission Bands, Queens of Avalon, Christian Endeavor Societies, etc.? Compare their value with that of alternative activities in which children would otherwise be engaged.

Week-Day Religious Instruction.—Recently a number of cities have introduced week-day religious instruction. The schools excuse the pupils during some regular school time—usually from one hour a week to one afternoon a week—and during this time they are given religious instruction by special teachers. For this work they sometimes go to their respective churches, or to a single neighboring church; sometimes the special teachers come to the public schools and use the regular school classrooms. But the work is financed from sources outside the public school funds, the attendance is voluntary, and the work is administered by private agencies, usually by an organization promoted through the churches.

Estimate the value of this arrangement. When the time allowed is one hour a week, it is no more quantitatively than the churches have available anyway in their Sunday schools. Why ask for an hour of day school time while next to wasting the hour on Sunday? By putting the same amount of money into paying for teachers and supervisors for the Sunday school, would it or would it not be possible to accomplish just as much? Where all the work would thus run simultaneously many teachers would be required instead of the few demanded when one teacher teaches full time, taking a different class each hour. Could enough competent teachers be secured to meet the first condition? Would there be as good opportunity to introduce progressive methods and improved subject-matter into the Sunday schools as into the week day work? From the standpoint of the public, are the schools justified in releasing pupils on school time until religious educators have pretty clearly demonstrated that they have material to present,

and expert methods to use, which are at least equal to those to which the same pupils would be subjected if kept at the ordinary school work? Do the week day religious classes, or do they not, have such well developed program? If not, do they show promise of developing it with only a reasonable length of period for experimentation?

Handicaps of the Church as an Educational Institution.—

In performing its function as an educational agency the church—that is, organized religion—is very seriously handicapped by several conditions.

1. By a *persistent, cramping conservatism*.—Organized religion is the most conservative of all social institutions. Ross¹ advises that, if we would keep any social institution progressive, we must keep it out of the control of organized religion. In primitive times sharp stones were used for circumcision, killing animals for sacrifices, and other religious ceremonies, long after metallic knives had come into common use for other purposes. Throughout history the church has systematically opposed the advancement of thought. Note the opposition to the Hebrew prophets, to Bacon, Galileo, Copernicus, Spinoza, Bruno, the theory of evolution. (*Cite other examples.*) Naturally it now finds itself trailing far behind science and philosophy, and even common sense; and its prestige, and the power of its appeal, are greatly weakened thereby—especially among the more thoughtful.

Evidences? What will be the future of the church if it persists in this conservatism? Explain this excessive conservatism. Is it true of all churches or only of some? Do present indications point to a break and a readjustment or to a steady deterioration?

2. The *inadequacy of its leadership*.

Do ministers have an amount of training commensurate with their responsibilities? Do they have a type of training that fits them for the work which the church of the future must do? Is the right sort of stock selected? If not, what changes are needed? Consider particularly the general and professional training of Sunday school teach-

¹ *Principles of Sociology*, in his chapter on "Ossification."

ers. Of Sunday school superintendents. How seriously do Sunday school teachers take their work? Why? How effectively are the Sunday schools administered? Compare with public schools.¹

3. *The lack of any systematic curriculum.*

How definite are the *goals* set up for the sermons of a six-months' period? Is the emotional momentum that the service seeks to create centered upon certain definite lines of proposed conduct which lines of conduct are known to be relatively the best ones for the church to work for? How much do we know about the legitimate objectives of Sunday school teaching? What machinery have we for knowing when we have reached these goals?²

Compare the pedagogical organization of Sunday school work as a whole, and also the character of the text books used, with those of the public schools.

4. *Irregular attendance.* In America the Sunday school reaches only 55.3% of persons under thirty-five years of age and the church includes only 43.9% of persons of all ages. Of these the average attendance in the Sunday school is about fifty per cent, and that of the church is still less. With half of its members attending less than half the time it is obvious that no educational institution could carry out an effective program.

Causes and remedies?

5. *Division of strength on account of competing denominations.*

To what extent are cities overchurched? Or overchurched in spots and underchurched in other spots? Villages? Rural communities? Causes? Remedies?

¹ See Report of *Indiana Survey by the Committee on Social and Religious Surveys.*

² Just at present a start is being made in standardized tests for church school achievements, and Volume II of the *Indiana Survey*, when published, will contain several such tests.

REFERENCES FOR FURTHER READING

- AMES, E. S., *Psychology of Religious Experience*, chapter IV.
- ATHEARN, W. S., *The Indiana Survey of Religious Education*, three volumes, published by the George H. Doran Company.
(An immensely valuable and thoroughly scientific piece of work.)
- BETTS, G., H., *Social Phases of Education*, pages 71-9.
- COOLEY, C. H., *Social Organization*, chapter 32.
- COPE, H. F., *Education for Democracy*, chapter X.
- ELLWOOD, C. A., *The Social Problem*, pages 203-19.
- FORBUSH, W. B., *The Coming Generation*, chapters XXIX and XXX.
- GILLETTE, J. M., *Constructive Rural Sociology*, chapter XVIII.
- ROBBINS, C., *The School as a Social Institution*, pages 64-73.

CHAPTER XII

OTHER NON-SCHOOL EDUCATIONAL AGENCIES

We have, up to this point, discussed as educational agencies mere association, the family and the church. There are many other agencies which jointly contribute immensely to the education of the individual. Conditions will permit us to allot for their presentation here space for little more than an outline. But the contribution of these agencies is much more fully discussed in Smith's *Introduction to Educational Sociology*, and in Forbush's *The Coming Generation*. The student is strongly urged to read the pertinent chapters in these books.

The Press.—There are published in the United States over twenty-two thousand newspapers and other periodicals, two-thirds of which are daily and weekly newspapers. The total circulation of these is above two hundred million copies per issue and more than fourteen billion copies per year. This is an average of two copies per issue for every man, woman, and child in the country. There are very few people indeed who do not read some sort of periodical literature, and most adults read several different papers or magazines more or less regularly. Because of the wide circulation of this sort of literature, the skill with which most of it is prepared, and the prestige attached by the mass of the people to anything in print (*illustrate*), the periodical press is, aside from the school and the home, by far the most potent of all agencies of education and social control.

Services of the Press.—The daily and weekly press

1. *Furnishes the news*, which is useful

- (a) For personal satisfaction. Everyone has a natural curiosity to know what is going on in the world, and it is no small hardship to be deprived of this informa-

tion and no small service on the part of an institution to supply it.

How important is it that pupils should keep informed regarding the news? How hold them to this in school?

(b) As a basis for social action. It is by information gained mostly through the newspapers that people are prompted to lavish help on a distant city ravished by fire or flood, that they are moved to aid famine-stricken nations across the sea, that they are enabled to know the record of public officials on whose return to office they must later decide, that they can judge when and how to buy and sell goods and securities, and that they do many other things calling for individual or collective activity.

2. *Molds and directs public opinion*, thus serving as the organ of democracy.

(a) It is the forum of political discussion and information, and is largely responsible for shaping political ideas and prejudices among the people. This it accomplishes in part by the type of news items which it prints. A paper can ingratiate an individual or a policy into the favor of the public by frequently printing news, especially favorable news, about him or it. Conversely any man or issue is helpless if systematically ignored by the press. In part it is accomplished by the way in which the news items are handled when printed. Headlines are often employed that induct the reader into the item with a set of mind calculated to have him get out of it the meaning the editor wishes; or certain features may be passed over very briefly while others are elaborated, so as to throw the facts out of proper proportion; or omissions may be made or suggestive comments inserted that affect vitally the value of the situation. And in part the shaping of opinion is accomplished by editorials. These are not always read, of

course, but when directly pertinent to a live issue, and especially when printed on the front page as they sometimes are, they often exert a tremendous influence upon the attitude of readers. Also the newspaper serves as forum by quoting at length the speeches of prominent men and by printing argumentative letters from readers.

“The press is as essential to the democratic control of activity in a great nation as nerve fibers to the control of activity in a vertebrate animal. Without it a democracy of a hundred million would be like a vast jelly fish, inert and certain to fall to pieces. Public opinion is dependent upon publicity, and no other medium of communication is adequate to make a vast population into one public. On the other hand, a society composed of capable, intelligent, and reliable individuals who have the means of prompt and persuasive intercommunication is practically certain to become a true democracy.”¹

What relation to this function has partisanship on the part of the press? Is it better that one paper exploit one side of an issue and another paper the opposite side, or that every paper be neutral? Better on what suppositions? Can any one claim good citizenship who reads less than two newspapers? How might censorship of the press react on democracy?

(b) By the same means as those mentioned above, the press determines the popular attitude toward moral, social, and industrial questions, putting back of them by way of reinforcement or repression the forces of social suggestion, sympathetic radiation, and imitation. Our moral attitudes and social and industrial prejudices do not rest to any great extent on instinct. They are caught from the atmosphere in which we live. Our thinking is whipped into line with that of the group of which we are members. Some of this social

¹ Hayes, *Introduction to the Study of Sociology*, p. 680.

contagion is from those in face-to-face contact with us, of course, but the styles of thinking that we catch are ordinarily those of much larger groups than the face-to-face ones. We aspire to dress and to recreate ourselves and to appreciate and to think and to act like "everybody" else, and what "everybody" does we gather largely from the press. So the kind of music, art and literary tastes, the modes of dress, the evaluations of class, the economic prejudices and the morals that are constantly played up before us are the ones we ultimately sanction and appropriate for ourselves.

Hayes says regarding this:¹

"Besides government, the other most powerful agency of control by sanctions is the pressure directly exerted by public opinion and sentiment. Public opinion controls by keeping constantly before the mind the idea that certain courses of action will be rewarded with reputation, respect, and friendship, while other courses of conduct will be punished with ostracism, hatred, and contempt. The ideas we have concerning public opinion, like those we have of law, both define the nature of the acts that will be rewarded and punished and fix the degree of recompense anticipated. It is the idea a man has concerning public opinion that governs him. Hence, whatever spreads abroad the idea that society is lax in its standards and negligent in its responses, reduces its control over its members, and whatever spreads the idea that society is exalted and exacting in its standards and emphatic in its condemnations and approvals, enhances its control."

Illustrate. Compare the legitimacy of censorship of the press in this respect with censorship over political discussion. If a difference, on what fundamental sociological principle does it rest? How conscientious are newspaper men in imposing on themselves a voluntary censorship?

3. *The newspapers furnish a large amount of miscellaneous information:* recipes, facts about science, facts about prominent

¹ *Introduction to the Study of Sociology*, p. 681-2 (Appleton).

men, historical snatches regarding the origin of certain present-day institutions, light literature and humor. This makes the newspaper, in a way, the poor man's encyclopedia—his penny-edition library, the modern successor to the older "almanac." No large percentage of people read these copper-plate fillers, and their statements of fact are often unreliable, but they are in the aggregate even now of no small value to those who read them and they might be made very much worth while to the large class of people who have few books and magazines if conscientiously prepared and well selected.

Is this material, including its comic pictures, jokes, and stories educative or de-educative? In what way? Would it, or would it not, be feasible and desirable greatly to change its character?

Dangers of the Press.—Potentially the press is an incalculable power for good, as evidenced by its tremendous services during the World War and in nearly all philanthropic efforts, but the same resources that make it a power for good also give it tremendous potentialities for evil.

1. *Yielding to the craze for the spectacular*, which has greatest news value, it often plays up accounts of crime and vice altogether out of proportion to their real place in society. This gives a false perspective on social life and tends to stimulate vice and crime.¹ As a people we like scandal, and the press is subject to great temptation to satisfy this abnormal appetite. So murder and divorce trials are often written up in detail, quoting the testimony verbatim, and this record makes fascinating reading for a morbid public. In consequence the imagination is stimulated, and thoughts thereby suggested begin to be entertained that otherwise would have been dismissed without a hearing. Even apart from the details, the mere continual mention of the fact of vice, crime, and faithlessness to accepted standards has a bad influence, since it makes one believe that "everybody" is doing the things related and that it must not after all be so bad to do them. As a matter of fact

¹ Ellwood, *Sociology and Modern Social Problems*, p. 339.

the great mass of people are living in an orderly manner, but these get no mention and their righteousness has not an equal opportunity to exert its power through repeated suggestion and through the revelation of modal sentiment.

Or is it true, on the contrary, that frequently hearing about objectionable acts builds up strong disgust for them? Could a newspaper succeed financially that gave no space to scandal?

2. *Since it is dependent on the good will of its subscribers, it caters to the mob*, and hence follows the majority instead of leading it.¹ There is no other single agency that can so effectively dampen a misdirected social enthusiasm as the newspaper. And yet it takes courage to go against the sentiment of the crowd, and the one who risks doing it is nearly certain to make some enemies, or at least to lose some friends. Conversely the editor who champions all sorts of local petty aspirations consolidates himself thereby with the mass. To drift with the crowd, giving expression to its sentiments as if they were his own, is the essential policy of the demagogue, and considerations of "success" commend this form of "tact" strongly to the newspaper editor.

Illustrate from incidents of mob activity in centers where the community is predominately in favor of the thing done by the mob. Also from politics, industrial disputes, and war manias. Can a newspaper in a small town be as independent of the crowd as it may be in a big city? Why?

3. *Its editorial policy is often warped by the economic or political interest* of its editor or, more frequently, of its capitalist owners. Everyone sees truth in a way that is involuntarily colored by his own interests, and editors are no exception. Besides, an individual or a group of individuals sometimes buy a paper, or a number of papers, for the deliberate purpose of political and economic propaganda.

4. *For the same reason a paper often distorts the news—*

¹ MacKenzie, *An Introduction to Social Philosophy*, p. 386.

suppressing some, inventing some, and distorting others by misleading headlines. In his book, *Changing America*, Ross gives a startling list of specific cases of suppression or distortion of the news in the interests of capitalist owners or at the behest of advertisers, and asserts that they are barely a third of the ones that have come to his notice. The following are two samples out of the large number:

“In a certain western city the vice-president of a large firm was indicted for bribing an alderman to secure the passage of an ordinance authorizing the firm to bridge an alley separating two of its buildings. Representatives of the firm requested the newspapers in which it advertised to ignore the trial. Accordingly the five English newspapers published no account of the trial, which lasted a week and disclosed highly sensational matters. Only the German papers sent reporters to the trial and published the proceedings.”

“During the struggle of carriage drivers for a six-day week, certain great dailies lent themselves to a concerted effort of the livery-men to win public sympathy by making it appear that the strikers were interfering with funerals. One paper falsely stated that a strong force of police was being held in reserve in case of ‘riots,’ and that policemen would ride beside the non-union drivers of hearses. Another, under the misleading headline ‘Two funerals stopped by striking cabmen,’ described harmless colloquies between hearse-drivers and pickets. This was followed up with the solemn editorial, ‘May a Man Go to His Long Rest in Peace?’ although, as a matter of fact, the strikers had no intention of interfering with funerals.”

Are dramatic criticisms made more lenient because of advertisements by theatre managers? Is it surprising that, when from two-thirds to nine-tenths of the cost of publishing a paper is paid for by advertisements, “he who pays the piper should call the tune?” To what extent, in your observation, do newspapers suppress or distort the news to protect certain persons (higher social classes as well as advertisers), or for propagandist purposes? Do papers co-operate in this matter or act independently? If the latter, how explain the apparently concerted action on so many occasions?

Remedies.—A number of remedies have been proposed for these abuses.

1. *An Endowed Press.*—Being independent of the pressure of advertisers, and indifferent to giving offense to subscribers, this could play a free hand with news and with editorial comment. Its board of control should be drawn from a wide diversity of interests, so that the members might counter-balance each other.

But how chosen? Elected by some group? Would questions of "political" expediency not then affect their conduct? Self-perpetuating? Might the board not then gradually and irretrievably drift into some one type of interest? Is any institution entrenched behind endowments sufficiently free from danger of excessive conservatism to be really safe?

2. *A municipally owned press*, open equally to all classes and to all political parties.

Would it be possible in practice to keep it open equally to all parties? Or would the dominant party have the advantage?

3. *Laws requiring that the names of the actual owners be prominently printed on all periodicals.*

How would this help? How far would it probably go toward solving the problem?

4. *The policy of carrying no editorial column whatever*, and assuming a perfectly neutral attitude toward the news. The *Literary Digest* and *Current Events* are periodicals of national circulation which exemplify this policy, and some local papers also follow it.

Or would that be running away from responsibility? Is it possible for a paper to be completely neutral toward the news? Is it desirable that the paper withhold from the public the convictions of its editors even if feasible?

5. *The Policy of Carrying only Signed Editorials.*—It is assumed that one will be more conscientious about what ap-

appears over his signature than if he wrote anonymously. Besides, the public can better evaluate an editorial if it is made clear whose ideas are being set forth in it.

6. *The Maintenance of a Protest Press.*—This is represented now by such papers as *The New Republic* and *The Nation*. Formerly it was represented by the then "ten-cent magazines," such as *Everybody's*, and the *Cosmopolitan* under titles like "The Treason of the Senate," "Blasting at the Rock of Ages," and "Frenzied Finance." This protest press makes it its chief business to criticise almost everything that is being done.

Roosevelt called this "muck-raking" and severely condemned it. What do you think is its value? What harm does, or may, it do? Is it, or is it not, a wholesome antidote to a press generally too subservient to the "powers that be"?

The Platform.—This is not at present nearly the force it formerly was. In the days of Emerson, before the newspaper and the magazine had assumed the rôle they now play, the lecturer was a very important factor in the education and entertainment of adults. But even yet the lecturer reaches and influences the conduct of many men and women, especially the more intellectual classes. But one form of platform work, the moving summer-chautauqua, has recently grown tremendously in scope and popularity and is now a considerable power in the education of adults, reaching the "lowbrows" as well as the "highbrows."

The Theater, Especially the Moving Picture Theater.—This is one of the major factors in forming the moral and social ideas and ideals of the young, and also in giving them many bits of useful information. Also, it is no small factor in the similar education of adults. The yearly income of the moving picture business (\$275,000,000) would indicate that between four and five million persons attend the movies each day. What the moving pictures could be made to do if used systematically for purposes of social control was dem-

onstrated during war time, when some of our most effective propaganda was carried on through them. The future will see the motion picture brought much more largely into the school room as an indispensable tool of education, and much can be accomplished by co-operation between the commercial "movie" house and the school.

What form could this co-operation take?

The Playground.—Through their play, children—especially little children—get practically all of their physical education, a large proportion of their moral and social training, and no small part of their intellectual development. In the earliest stage of play—the "dramatic stage," in Lee's analysis—the child mimics the more serious activities of adult life, and thus develops powers enabling him to participate in corresponding serious activities when the times comes to do so.

Illustrate each of these claims.

In the second period—the "self-assertive," about ages nine to twelve—he discovers and cultivates his individuality and learns the limitations of that individuality, namely, that he can get along only as he takes account of the rights of others as well as of his own.

Show how this works out.

In the third stage—"the loyal," adolescent age—he learns to sacrifice himself for the group with which he is playing, and thus develops a trait indispensable for effective social living.

Show how team work involves self-sacrifice and how it trains for social living.

But play also has its dangers. Especially may the self-assertiveness of the second stage readily come to dominate the individual and make him selfish, intolerant, and overbearing. This especially tends to be true of the child who

plays much alone, or under artificial shelter. (*Illustrate.*) Also the first stage is subject to the danger that its dramatizing instinct may, without intelligent check, develop into a very annoying habit of "fibbing," and adolescents who miss the opportunity for group play during the third stage may later find the instinct of loyalty and co-operation largely starved out by reason of its not having had occasion to function at the time it first matured.

The remedy for these faults is supervision of play. A little of this supervising can be done by parents, especially with children in the first stage. But after all not much supervision of play can be expected in the home. Parents have little time to play with their children. Moreover, home groups are likely to be too small and facilities too meager. This latter is particularly true in the city, where the only space available is frequently the street crowded with vehicles. Principles of economy as well as of effectiveness make it desirable that children be brought together into fair-sized groups, to playgrounds with plenty of space and proper equipment, and under the direction of a trained and sympathetic supervisor. During the last twenty years much headway has been made by such playground movement. Many communities are at last recognizing that play is not a waste of time, to be pardoned in children by adults but taken lightly, and are coming to the place where they are willing to spend money for its promotion because they see its ethical and educational significance. Not only have schools provided for it at public expense but there is frequently also generous provision in parks and Y. M. C. A.'s.

Curtis gives the following as the purposes of this movement:

1. Promotion of physical health of children by keeping them in open air and giving increased power of vital resistance.
2. Development of physical strength.
3. Development of vital or organic strength (fundamental muscles, heart and lungs).

4. Establishment of right habits—courtesy, kindness, fairness, honesty, loyalty.
5. Development of energy and enthusiasm.
6. Pleasure.
7. Equipment for future play.¹

Opportunities for directed play can be provided in public and charitable gymnasiums, swimming pools, and prepared river fronts, parks, vacant lots equipped for play, supervised church and school playgrounds. Playgrounds should be constructed for play, not for show, as is so often the case with those of the school ground. The "keep off the grass" principle should be reduced to a minimum. Too often a school ground is surfaced, laid out and maintained as if it existed for the convenience of the janitor rather than of the children.²

Libraries, Art Galleries, and Museums.—There are over eighteen thousand public libraries in the United States, widely distributed. Museums and art galleries are found chiefly in large cities, although also in the colleges of smaller places; and they are important factors in education. New York City alone has eight large museums. To visit these is in itself an education for adults or children. To have the privilege of using them to make concrete the teaching of certain topics in school is an advantage inland teachers may well envy. Libraries, art galleries, and museums make a contribution to education not only by reason of the specimens they contain but also through many free or low-priced lectures and concerts they provide.

Boys' Clubs.—Street boys have perhaps always organized gangs. Unfortunately these, when spontaneous in origin and uncontrolled by responsible people, often take an anti-social

¹ Added from Gulick.

² For suggestions for surfacing of playgrounds, equipment, administration, etc., see Bulletin of the Bureau of Education, 1913, No. 40. See also the books of Curtis, Lee, Bancroft and Johnson. For a suggestive discussion of the relation of play to delinquency see the article "Recreation versus Delinquency" by Miss Maude L. Doebelin in *School and Society*, Volume 12, pp. 478-87.

form, expending their enthusiasm in annoying policemen, pilfering small articles, and fighting rival gangs. But the same instinct that makes possible marauding groups also makes possible wholesome ones. Taking cognizance of the possibilities from organization of the energetic type of boys who live on the street, sympathetic and high-minded adults have here and there worked with the lads to turn their gregarious instincts to constructive account, and have organized clubs under supervision and dominated by wholesome ideas. As early as 1887 some organized work of this type was undertaken and a "General Alliance" of workers for boys was started in 1895. But it was not until ten years later that workers with street boys formed an organization of their own known as "The Federated Boys' Clubs." This Federation is now an incorporated organization, is international in scope, with headquarters in New York City, and had affiliated with it in 1920 one-hundred and sixty-six local clubs with an aggregate membership of about one hundred and fifty thousand boys.

These clubs for street boys reach a different class from that caught by the Y. M. C. A., or even by the boy scouts—mostly the rougher set, non-protestants, and largely foreigners. Besides organization for social purposes, they provide a program of recreation and instruction much like that of the Y. M. C. A. and administer it in essentially the same way, except at much less expense to members. Also the instruction is more elementary.¹

Scouting.—The Boy Scouts and the Camp Fire Girls are world wide organizations appealing to boys and girls through something of a reproduction of the conditions of primitive life. The Boy Scouts of America were organized in 1910, though the movement was started earlier in England. There are in the world at present more than a million boy scouts, one-fourth of whom are in the United States. "The Camp Fire Girls" is a later and smaller organization, but growing

¹ See Forbush, *The Coming Generation*, chapter 20. Also see the article by Atkinson in the August, 1923, number of *Good Housekeeping*.

rapidly. It was founded in 1911 and by 1916 its membership was 73,000.

Scouting embodies perhaps the best pedagogical principles exemplified in any educational institution now existing. The basis of the work is chiefly "projects," units defined in terms of achievement—skills or information to be won and for the attainment of each of which a badge is offered. The scout manual defines some sixty of these projects of a very cosmopolitan character. A few samples are: firemanship, first aid, public health, carpentry, printing, taxidermy, swimming, bird study, chemistry, cooking, pathfinding, archery, signaling, bugling, photography, gardening, bee keeping, civics, surveying, and wireless telegraphy. During 1919 there were 72,142 merit badges given for the successful completion of such projects, grouped as follows:

Accident prevention	17,588
Handicrafts	10,954
Health	10,791
Athletic achievements	8,054
Intellectual achievements	6,646
Camping activities	6,626
Pioneering skills	3,015
Agricultural arts	2,018
Fine arts	1,844
Civics	1,659
Mechanical	1,573
Sign mastery	1,374

The boy's fondness for "roughing" is utilized. The gang spirit is given chance for exercise but in a way that is genuinely wholesome. The idealism and the loyalty by which adolescence is uniquely characterized are given a means of normal and virile expression, such as seems unattainable in any other way. No better means are known for giving civic and moral, and perhaps other, education than that provided by the scouting movement.

Look up the pledge and the motto of the Boy Scouts and estimate their influence on the making of character.

Summer Camps.—These may be conducted by family, Y. M. C. A., church, charity organization, or private enterprise. Within the last fifteen or twenty years there have been a considerable number of self-supporting camps developed for boys (and some for girls) of well-to-do parents, especially in New England. The first of such camps for boys, Camp Asquam, was established more than forty years ago, and a similar camp for girls even earlier. These camps offer unsurpassed opportunities for civic and moral education and for nature study—equalled only by those of the Boy Scouts. It might prove to be a desirable educational practice to subsidize summer camps out of the public treasury and rely chiefly upon them for the teaching of those aspects of morality, citizenship, science, etc., that the school is poorly adapted to handle. For the modern camp affords not merely an outing but a systematic educational program carried through under extremely favorable conditions.¹ It would also be possible to have boys and girls utilize the summer to great educational advantage for remunerative work under guidance, such as gardening under supervision or the plying of the youth's contemplated vocation for the sake of orienting himself regarding it. Particularly for somewhat older boys and girls this might well supplant, or at least supplement, the summer camp.

Show, by illustration, what things could be done better in summer camps, or in summer work, than in school.

Y. M. C. A., for boys of the better classes and for men. **Y. W. C. A.** for girls and women. There are, in the United States, more than two thousand associations for men with nearly seven hundred and fifty thousand members. The associations own more than a hundred million dollars worth of property and employ over five thousand paid officers.

The Christian Associations afford facilities for light recrea-

¹ For some concrete hints as to its possibilities, see the *Pedagogical Seminary* article cited below.

tion, social intercourse, athletics, moral supervision and instruction, reading-room facilities, and often provision for boarding and lodging at low rates. They also frequently offer systematic courses of instruction in an extremely wide range of subjects, from elementary school to university rank, stressing the practical aspects of the subjects studied. They also do much Americanization work in the form of English or citizenship courses for foreigners, and carry on friendly vocational guidance and placement work.

The statistics of activities for 1919 show for the year: 61,771 socials and entertainments; situations secured for 82,311 men; 269,731 men and boys in regular gymnasium classes under trained instructors; 96,744 members pursued courses of study largely in evening and vocational classes; 129,628 men and boys were in Bible-study classes; 37,825 decisions for Christian life, and 5,397 persons known to have united with the church as a direct result of association efforts.

Labor Unions.—Organized labor has come to be a force of the first magnitude in modern social and industrial life. It includes between three and four million workers. No other institution except the church brings together frequently for deliberation so large a number of adults as do the labor unions. The primary function of the labor union is, of course, to improve the economic status of the members, but collaterally it makes a large educational and social contribution.

1. *It develops a sense of personal worth* in a group held historically in low esteem, and thus has reacted to elevate their social status. A normal amount of class consciousness and class pride is wholesome for any group, and artisans are as much entitled to it as any others. Law, medicine, teaching, and the ministry have been made professions by the development of a class consciousness and a class ethos, and if manual labor is ever to approach the status of a dignified profession, that status must come through the nurture of the sense of group worth, group solidarity, and group service engendered by common association and discussion. Thanks partly to the

results of organization among workers it is no longer undignified to be a laborer, and it will be still less so in the future.

2. *It brings men together into co-operative fellowship* and gives occasion for discussion and for sharing ideas, with the social and intellectual development that comes with such joint deliberations.

3. *It fosters, at best, the development of skill* and stimulates efficiency among its members. This is one of its avowed purposes. In this respect it sets up for itself the same aspirations as do associations of teachers and of physicians. Doubtless it does something toward attaining this aim, but it could be wished that it might hold more unswervingly by this high ideal. There can be no doubt that often in practice it prompts its members to a spirit of dilly-dallying, especially in piece-work lest the price per piece be cut, or lest there should not be enough work to reach around, and thus impairs efficiency instead of promoting it. (*Illustrate*).

4. *Through control of admission to the crafts it has power to uphold high standards* of workmanship. To protect the trade against incompetent upstarts is one of the arguments unions employ in defense of the closed shop. But often, unfortunately, the unions make use of the monopoly accorded them by control of admission of workmen for the purpose of shielding their members from competition, and thus lower the grade of workmanship as compared with what it would be under free competition.

5. *It frequently conducts trade education*, usually by apprenticeship but sometimes by supporting regular trade schools.

Look up the history of the support of schools by trade guilds in mediæval and modern Europe.

6. *It has rendered notable service by championing the cause of public education*. From the first it was organized workmen who were the chief supporters of free schools in America. The labor unions have earnestly supported the establishment of vocational education in the recent past and they have stood

by the National Educational Association in supporting the Towner Sterling Bill for a national department of Education and for large appropriations for national aid to schools. Occasionally they have opposed particular forms of industrial education, when they feared these might be used for purposes of exploitation, but on the whole they have consistently advocated the extension and support of public education wherever it gave promise of being democratic and efficient.

Farm Organizations.—These include the grange, the American Society of Equity, the Farmers' Union, the Hesperia Movement, etc. These organizations render for agricultural workers a service similar to that of the labor unions for industrial workers. Often co-operative buying and selling efforts have been made in connection with them, though usually with poor success. The organizations have also taken an active and wholesome interest in rural education and in the rural church, and have everywhere fostered a higher civic and cultural attitude toward life.

Farmers' and Teachers' Institutes, discussing the technical problems involved in these vocations. Also occasional institutes for other workers—as janitors. While sometimes rather superficial in character, these have, on the whole, made immense contributions of ideals and information to their respective vocations.

Professional Associations,—ministerial, medical, legal, educational. These react on the development of their own members and also promote the well-being of the community, state and nation through organized propaganda.

Women's Clubs.—More than eight hundred thousand women are affiliated in the Federation of Women's Clubs in America. These clubs are a tremendous force in local and national social, moral, hygienic and political life and are becoming more so, particularly since the political enfranchisement of women. The typical club is cultural in primary purpose, but these organizations easily take on a propagandist character in the interest of better education, better health, and cleaner poli-

tics. Although they are occasionally erratic, there are no groups more generally actuated by unselfish aims, or marked by more persistent enthusiasms, than women's clubs.

Scientific, Art, and Literary Societies, for promotion of culture and development of science. Examples are: The American Historical Society, American Sociological Society, National Society for the Study of Education, local art leagues, and literary associations such as Browning or Shakespeare Clubs.

Participation in Conversation and in group movements for improvement of the community, miscellaneous reading, work, and a thousand other informal contacts. For children these informal contacts are covered by the term "street life."

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Make a study of the "copper plate fillers" of the newspaper. What topics do they treat? How many of them are of educational value if read and their contents retained? How do city papers and country papers compare in the number and kind of them used? How many people read these items? How many clip them out? (Use quantitatively controlled methods on the above study.)
2. Study newspapers to determine to what extent misleading headlines are used. In order to reduce the personal equation of the investigator, have three judges read independently each of the articles used and count those headlines misleading that two of the three judges noted as being so.
3. There is a widespread opinion that the popular magazines exert an unwholesome influence on social life, particularly on morals. Do they? In order to test this, set at least eight investigators to work somewhat as follows: Agree upon a scale for measuring contribution to the elevation of morality and of civic righteousness. Let articles that are completely neutral in influence be rated zero; let those that are adjudged harmful be rated from minus one to minus ten, according to the degree of badness; similarly let those that are considered wholesome in influence be rated from plus one to plus ten. Select by random sampling the stories, and other articles, to be read, having all judges read the same articles and rate them on the above scale. Then average the estimates on each article, and make an algebraic sum of the averages. Do the same with the movies.
4. Devise, and try out, a method for determining how much information

the movies offer; how much of this is misleading information; and what is the net gain or loss.

5. Devise a method for proving scientifically that supervised play has, or has not, great enough social and educational value, compared with the value of other forms of educational activity, to justify our spending considerable sums of money on it. (Up to the present we have rested our claims for support of play on *a priori* arguments for its value. We shall get a better hearing when we can offer scientific evidence.)
6. Draw a line down the middle of a large sheet of paper. On one side of the line write the things that can best be taught in an ordinary school; on the other side write the things that could best be taught through rightly conducted scouting and summer camps.
7. Trace out the evolution of the farmers' institute in your community, ascertaining what progress there has been in respect to kinds of topics discussed, competency of instructors, attendance, and the extent to which the instruction has influenced practice.

REFERENCES FOR FURTHER READING

- ATKINSON, C. J., "Give Me a Square Deal," *Good Housekeeping*, August, 1923, page 731.
(An account, by the Executive Secretary of the organization, of the present status and activities of the Federation of Boys' Clubs.)
- ELLIS, D., AND THORNBOROUGH, L., *Motion Pictures in Education*.
- FORBUSH, W. B., *The Coming Generation*, chapters 19-21.
(Discusses play, clubs for street boys, and camping.)
- HAMILTON, "The Summer Camp as Education for Leisure," *Pedagogical Seminary*, Volume 26, pages 372-90.
(Very suggestive article on the educational possibilities of the summer camp.)
- HAYES, E. C., *Introduction to the Study of Sociology*, chapter 36.
(Chapter on educational agencies outside the school.)
- Manual of the Boy Scouts of America*.
- ROSS, E. A., *Changing America*, chapter 7.
(A sensational chapter revealing distortion of news in the interests of certain parties or classes.)
- SMITH, W. R., *Introduction to Educational Sociology*, chapters 5, 6, and 7.
(Good account of non-school agencies. It should by all means be read along with this chapter.)
- UNITED STATES BUREAU OF EDUCATION Bulletins, 1921, numbers 41 and 46.
(Accounts of the educational work of the Boy and the Girl Scouts respectively.)

CHAPTER XIII

SOCIALIZATION

Man's Nature Social.—No normal human being can live strictly to himself. Apart from social relations he could not develop his intellectual powers above the level of feeble-mindedness. In even a reasonably difficult situation he could not glean his living from nature nor successfully combat his enemies. Deprived of association with his fellows in adulthood he relapses to idiocy or terminates his misery by suicide.¹ Man's nature is inescapably social. Conditions draw him as irresistibly into group life as the leaf drifting on the river is drawn into the vortex. These social propensities are, of course, not accidental but are grounded in instincts that were necessitated by the conditions of survival in the struggle for existence. Blessed with fewer natural facilities for escape and for combat than most of his competitors, man was obliged to seek strength through co-operation with his fellows and out of this need arose, as a basis for effective group life, the instinctive tendencies to sympathy, gregariousness, altruism, co-operation, and loyalty, in much stronger form than among any of the lower animals. The operation of these instinctive tendencies, called into play by certain types of situations, welds men together into a compact unit. The process by which individuals are thus fused into solidarity of spirit is called socialization. This process can be seen in its crudest and most exaggerated form, though also in its simplest development, in the phenomena of crowds (mobs).

Translation of an Aggregate into a Crowd.—Herbert Spencer intimates that in the crowd there is a sort of summing up

¹ On the effect of solitude see Ross, *Principles of Sociology*, pp. 96-105.

of, or average struck between, its elements. His supposition is that a group is an aggregate of individuals, and that these individuals remain essentially the same in the assembly as they would be outside of it. This opinion is shared by a large number of persons who have never particularly studied the problem. "A man's a man" they tacitly assume wherever you find him. In consequence they look over the persons of their acquaintance and conclude what are their normal or average characteristics. For this average individual they prepare their speeches or work out their inventions or formulate their business or political policies.

And under many conditions this atomistic view is justified. Men often are only aggregated instead of grouped. The peddler who goes about from man to man in the market place, or who waits for one customer after another to stop at his stall, must, if he is to do most business, prepare for the average individual of the assembly. Similarly, the man who presses his invention or defends his doctrine with men singly may well adapt himself to the average type of man. Even here, of course, there is not absent a very large factor of group rather than individual behavior, but men thus met are merely men to such extent as largely to justify the atomistic view. All are going their several ways and the decisions of each are free from at least the immediate and direct influence of others.

But there are other occasions when this view of a group of men as a mere aggregate is very far from the truth. They remain an aggregate only so long as their interests are dispersed among many things. The moment the attention of all is simultaneously turned to the same center, as where a speaker harangues them, where a fire breaks out, or where some unusually important news is announced, they at once take on very different characteristics. They cease to be individuals and become members of the crowd. They lose their atomistic nature and become a solid unit. Their own private minds are absorbed into the mob mind, which is by no means the sum of the elements that make it up.

“Whoever be the individuals that compose it, however like or unlike be their mode of life, their occupations, their character, or their intelligence, the fact that they have been transformed into the crowd puts them into possession of a sort of collective mind which makes them feel, think, and act in a manner quite different from that in which each individual of them would feel, think, and act were he in a state of isolation. There are certain ideas and feelings which do not come into being, or do not transform themselves into acts, except in the case of individuals forming a crowd. The psychological crowd is a provisional being formed of heterogeneous elements, which for a moment are combined, exactly as the cells which constitute a living body form by their reunion a new being which displays characteristics different from those possessed by each of the cells singly.”¹

Solidarity of the Crowd.—It is this solidarity, this oneness of mental life and not the mere fact that many persons are assembled at one place, that makes of them a crowd in the psychological sense. Indeed it is not even necessary for persons to be congregated at one place to become a virtual crowd with all of the characteristics belonging to such. It is necessary only that the same spell should grip them all—the same hope, or superstition, or fear, or imagination—and that they be able to communicate this to each other and thus develop and sustain it in common. This the telegraph, the telephone, and particularly the sensational newspaper can accomplish as well as direct personal contact. The commercial panics which have occurred from time to time, the stampedes to the West or to the Klondike gold fields, the mania that swept over every interested nation at the inception of the recent war, are a few examples of such crowd phenomena. “The Great Fear” which spread over France in 1789 illustrates the process. Stevens describes it thus:²

“The months of July and August may be called the months of the ‘Great Fear.’ Men were afraid, both in town and coun-

¹ LeBon, *The Crowd*, pp. 29-30.

² *History of the French Revolution*, Vol. I, 178-9. Quoted by Ross, *Social Psychology*, p. 73-4.

try, of they knew not what. How this universal feeling of terror arose cannot be proved, but it was actually deemed necessary in some districts for a distinct denial to be published to the report that the king had hired brigands to rob the people. . . . This great fear was generally expressed by the words, "The brigands are coming." Who the brigands were, whence they came, or whither they were going, nobody knew; but that the brigands were coming, nobody doubted."

Psychological Forces Producing Solidarity.—The thinking level of the crowd is much lower than that of the individual or even of the normal group—so much so that LeBon says "by the mere fact that he forms part of an organized crowd man descends several rungs in the ladder of civilization." This is because the crowd must respond in terms of what the members have in common and what they have in common is ordinarily less than what any one of them possesses as an individual. What is common to the group can be strengthened by suggestion. Touch the cord common to all and each will express his approval by applause and by repeating catch words, by smile and nod, or at least by change in breathing and in facial appearance. The sight of this approval on the part of others around him confirms the acquiescence of each, and thus by reciprocation they mutually strengthen each other. A wave of emotion thus started sweeps through the crowd and swells into a surging torrent. But an appeal to that to which only a part of the crowd has the capacity to respond lacks the strength that such reinforcement by reverberation provides. Instead of the attitude of one's neighbor confirming, and by suggestion augmenting, one's response, it acts as a counter suggestion and inhibits it. One finds his neighbor cool and his indifference serves to cool one's own emotion. What the crowd does not have in common is thus automatically frozen out. One can indulge his individuality in solitude but it is extremely difficult to indulge it in company.

Characteristics of the Crowd Mind.—*Simplicity.* Because of the fact that the crowd mind can contain only the elements

common to all of its members, it is possessed of but very few and very general ideas. These are those basic principles which have been for generations working their way into the woof and web of men's natures until they have become the unconscious background for all their apperceptive processes. Such ideas are for us those of political and industrial equality, the square deal, the spirit of democracy, certain religious dogmas, etc. To be sure these ideas are of the vaguest lump kind, but they constitute a residuum to which any leader may appeal with the certainty of getting a hearty and unanimous response.

Suggestibility. Lacking the wealth of ideas and impulses which the normal individual possesses, the crowd lacks the means of deliberation. It cannot set a wide range of experience against a suggestion and thus criticise and inhibit it, for all of its manifoldness is allayed. It is essentially hypnotized. Hence the crowd is extremely uncritical, credulous, and suggestible. It is ready to believe any report, however wild, and to carry any suggestion of its leader directly into action.

Impulsiveness. Impulsiveness follows as a matter of course. In the simple mind which the crowd possesses all brakes are off, and a suggestion can emerge into action as readily as in the individual whose powers are likewise allayed under hypnosis. Besides, the motives for inhibition which would have weight for the isolated individual lose their influence in the crowd. The crowd is anonymous and no one member feels that punishment for the offense can fall upon him personally. Then, too, the numbers by which he is accompanied suggest to each member invincible power. He feels for the moment superior to any of the powers of order, even should they find him out. And so he rushes headlong into enterprises which isolated he would never think of entering. Thus it often happens that crowds of which every member is a peaceable man have perpetrated lynchings and other atrocities which every one in his individual capacity would have abhorred.

Intolerance.—As the crowd will not inhibit these wild im-

pulses from within, neither will it tolerate their being checked from without. Sometimes they may be given another direction by shrewd substitution; but direct contradiction the crowd will not tolerate.

“Like a savage it is not prepared to admit that anything can come between its desire and the realization of its desire. It is the less capable of understanding such an intervention in consequence of the feeling of irresistible power given by its numerical strength. . . . An unexpected obstacle will be destroyed with frenzied rage. Did the human organism allow of the perpetuity of furious passion, it might be said that the normal condition of a crowd balked in its wishes is just such a state of furious passion.”¹

Feeling.—The crowd is then characterized by feeling rather than thought, and its behavior follows the logic of such feeling. Says Ross,² “Feelings, having more means of vivid expression, run through the crowd more readily than ideas. Masked by their anonymity, people feel free to give the reign to the expression of their feelings. To be heard, one does not speak; one shouts. To be seen, one does not simply show one’s self; one gesticulates. Boisterous laughter, frenzied objurgations, frantic cheers, are needed to express the merriment, or wrath, or enthusiasm of the crowd. Such exaggerated signs of emotion cannot but produce in suggestible beholders exaggerated states of mind. The mental temperature rises, so that what seemed hot now seems lukewarm, what felt tepid, now feels cold.” The crowd is thus given to the exaggeration which alone is congruent with intense feeling. Its heroes must be represented as more extreme than this world ever really produces. Its leaders must assume an unnatural, bombastic tone and manner, and indulge in rhetorical extravagance.

“It is all to the interest of the leaders to indulge in the most improbable exaggeration. The speaker of whom I have cited a sentence was able to affirm, without arousing violent pro-

¹ LeBon, *The Crowd*, pp. 42-3.

² *Social Psychology*, p. 46.

testation, that bankers and priests had subsidized the throwers of bombs, and that the directors of the great financial companies deserve the same punishment as anarchists. Affirmations of this kind are always effective with crowds. The affirmation is never too violent, the declaration never too threatening. Nothing intimidates the audience more than this sort of eloquence. Those present are afraid that if they protest they will be put down as traitors and accomplices."¹

Exaggeration.—The crowd is given to excess. "Like women it goes at once to extremes. A suspicion transforms itself as soon as announced into incontrovertible evidence. Commencement of antipathy or disapprobation, which in the case of an isolated individual, would not gain strength, becomes at once furious hatred in the case of an individual in a crowd."² Its reasoning is of the purely emotional type, illogical association of vivid concrete imagery. "A crowd thinks in images, and the image itself immediately calls up a series of other images, having no logical connection with the first. We can easily conceive this state by thinking of the fantastic succession of ideas to which we are sometimes led by calling up in our minds any fact. Our reason shows us the incoherence there is in these images, but a crowd is almost blind to this truth, and confuses with the real event what the deforming action of its imagination has superimposed thereon."³

Conservatism.—And finally, in further consequence of the fact that it remains on the level of feeling rather than thought, the crowd is excessively conservative.

"Crowds are too much governed by unconscious considerations, and too much subject in consequence to secular hereditary influences, not to be extremely conservative. . . . They possess conservative instincts as indestructible as those of all primitive beings. Their fetish-like respect for all traditions is absolute; their unconscious horror of all novelty capable of changing the essential conditions of their existence is very deep rooted. Had democracies possessed the power they

¹ LeBon, *The Crowd*, p. 223.

² *Idem.*, p. 56.

³ *Idem.*, p. 45-6.

wield to-day at the time of the invention of mechanical looms or of the introduction of steam power and of railways, the realization of these inventions would have been impossible, or would have been achieved at the cost of revolutions and repeated massacres." ¹

Commendation of "the good old times," and polemic against the "looser" tendencies of the present are always popular. It could not well be otherwise. To fall into the unity which group psychology requires, men must fall backward to that dead level where they can be at one. This fact every successful crowd demonstration shows. The political campaigner must fall back upon the prejudices of his hearers, the platform lecturer must drift with his audience, and, most notoriously of all, the religious evangelist must come preaching "the old time religion." Crowds are always disposed to welcome and applaud a revival of past institutions. They feel at home with these while the new produces a certain unrest in large enough proportion of the group to dampen by irradiation the spirits of all. The crowd is, as it were, in unstable equilibrium. Men have been raised with great pains to their present level and, upon the slightest occasion, especially when assembled together, they tend joyfully to drop back into the stable equilibrium represented by those old institutions from which they have been long fighting their way upward.

Control of Crowds.—Of these psychological traits of the crowd the demagogue takes advantage. He meets it on its own level and feeds as a parasite on its weaknesses. He appeals to passion and prejudice, to selfishness and conservatism, by the methods of obscurantism, shibboleth, irresponsible assertions, and reckless promise. (*Illustrate by showing how several typical demagogues have played upon these crowd characteristics discussed above.*) But by taking cognizance of these same psychological laws the conscientious citizen can do much to free himself and his community from mob spirit, or even turn

¹ LeBon, *The Crowd*, pp. 62-3.

it to wholesome, constructive account. He can deliberately estimate that spirit for what it is worth and thus keep at least largely free from its spell. One can cultivate, too, an ideal of poise and self-restraint which will serve him well in such a crisis as inclusion in a crowd is sure to bring. He can also serve his community by doing his part to keep it free from mob activities. He can make clear to his neighbors in their calmer moments what the mob excitement really means, and thus fortify them in advance against giving the agitator their sanction. Not only can he himself flee yellow journalism and yellow politics and yellow religion, but he can do much toward creating sentiment against them in others. Moreover, in a crowd he can often prevent excesses. His own calm can do much to calm the group. More than once the steady nerve of a single well-balanced man has been sufficient to sober the ebullient crowd, not so much perhaps by directly and aggressively opposing it as by, starting from its own level, skillfully turning its momentum into some calmer and less harmful direction.

Crowd Good as Well as Bad.—But crowd phenomena are not to be thought of too disparagingly. They can prompt to sublimely noble reactions as well as to despicably base ones. Men exhibit their most audacious courage under the inspiration of group stimulus. In a crowd men will be lavishly generous with monetary or other sacrifices to an extent utterly beyond their normal practice as individuals. In short, whether the reaction be good or bad, the crowd will throw itself into it with an amazing impulsiveness, lack of deliberation, irresponsibility, enthusiasm, and exaggeration. The problem for educators and other social leaders is to direct these forces in such way as to make them drive civilization to a higher level.¹

Crowd Phenomena in School.—There are several important respects in which schoolmen are dealing with crowd phenomena in connection with their work.

¹ The classic work on the psychology of crowds is LeBon's great book, *The Crowd*. An excellent shorter discussion is to be found in Ross *Social Psychology*, Chapters 3-5.

(1) *In the maintenance of their own prestige as individuals.* As long as all goes well the teacher is held in high esteem. A few persons speak favorably of him and forthwith the report spreads abroad that he is "well liked." But let some little incident occur, or be alleged to have occurred, that releases the hounds of gossip, and the public will turn solidly and furiously against him. All of the irrationality, the exaggeration, the unwillingness to deliberate and investigate, the suspiciousness and cruelty of the mob are brought into play and he is fortunate if he escape ruin. A teacher cannot be too careful about matters that might start gossip, and should not be surprised if even occasionally without any real cause he or one of his colleagues is caught in a storm of undeserved but general social disapproval.

Have you any recommendations for saving school people from the consequences of unjust opposition?

(2) *In seeking popular approval of school policies—finances, building program, educational policy, etc.* If these are to be "sold" to the public the sale must be made under the operation of the laws of social psychology. Conversely, the program may be wrecked at any time by the machinations of the demagogue playing upon the temper of the crowd, or even by the spontaneous origin of a mob mania.

Illustrate by citing instances of each of these three possibilities.

(3) *In the control of the class.*

The Mob Spirit in Class.—The class is not an aggregate of thirty or more individuals; it is a unified group. How each pupil reacts, depends upon the attitude of the others. Pupils may sneeringly resist appeals to their better nature when at heart they are really touched; they are only trying to keep up the appearance of being "rough-necks" because they gather that the group will consider them weak if they admit approval. Many of those who join in mischief-making do so

merely by way of echoing the spirit of the "bunch." On the other hand when it becomes plain that the class is in sympathy with the teacher and when pranks are met with disapproval, even silent disapproval, disorder on the part of individuals is quickly frozen out. There is in every class a *fashion* of conduct. Some classes are spontaneously interested and orderly; others are indifferent, noisy, or rebellious. And the attitude is not one of individuals taken separately; it is a group attitude—the expression of the collective mind. Usually this phenomenon is present as a general background of activity, sometimes lasting for only a day and due to weather conditions, the temper of some leading member of the class, some remark at the opening exercises, or the method of attacking the class work; sometimes it is more lasting, and may endure for weeks or months. But occasionally it is not merely a background for work; it becomes an intense mob mania. Resentment on the part of the group for some act of punishment by the teacher, refusal of a privilege that the school considers due it, or even some mirth-provoking incident, may transform the class into a crowd with all the irresponsibility and the inconsiderateness of the typical mob. In such mob, as is always the case with crowds, the members feel that they cannot be singled out and held individually accountable, and this anonymity gives them courage to plunge to lengths from which under normal conditions the fear of consequences would restrain them. Strikes or rebellions either in class or in the school as a whole always rest upon crowd psychology.¹

Holding in Check the Mob Spirit.—The teacher needs to utilize the laws of group psychology in controlling the potentially omnipresent crowd spirit, even turning it to good account. Many teachers do this intuitively, having picked up its technique unconsciously in the give-and-take of social experience.

(1) The tactful teacher will *avoid unnecessary conflicts* with

¹ For many concrete illustrations, see Clow, *Principles of Educational Sociology*, Chapter 6.

the group. The best disciplinarian gets on without any show of discipline. When crises arise, it is, of course, necessary that the teacher handle them with vigor and courage. Weakly to back down would mean irretrievable loss of prestige. But it is no credit to a teacher to be continually having crises to meet. While the writer was principal of a high school he had a teacher who could not get on with one of the boys. She knew very well that he hated her. Nevertheless when she wanted someone to do her the favor of carrying the phonograph downstairs, she asked this boy to do it. He refused; she then insisted that the principal ought to expel him. It is such unnecessary crises that it is the part of tact to avoid.

(2) The crowd can be handled better if *dealt with good-humoredly* than if defied. Aggressive opposition always intensifies the crowd spirit. Conceivably the teacher might break down a mob by the weight of his attack, but ordinarily he will have better success if he meets it good-humoredly. The writer knows a teacher who was once threatened with a hazing by his students. When they came around for the purpose he maintained his calm, laughed at them, and joked with them, and they changed their minds.

(3) The crowd should be *broken up into individuals*. Get the members apart and talk with them separately. Do not direct requests or disciplinary measures at the class as a whole but isolate single persons and deal with them one at a time. Individuals will be reasonable, or at least tractable, when the crowd will not.

(4) In your class work *do not give opportunity* for the spirit of chaos to get started. See to it that things move on in routine fashion. It is when the teacher must hunt for laboratory equipment, or for a reference, while the class is idle, or when he has so poorly planned the lesson that it does not move on smoothly, or when in some other way there are hitches, that there is danger of spontaneous development of mob mischief. As long as the teacher keeps things in his own hands and keeps them moving, there is little danger.

(5) *Maintain your own calm.*—Nothing else is so contagious in a crowd as the calmness of one or more persons, especially those with great prestige. The calmness of a commander in war, or of an individual person at a fire, can reduce to rationality the whole ebullient multitude.

(6) *Seek to enlist the support of the natural leaders* of the group. Not all persons of a crowd have equal influence. Its character is usually determined by a few members, and often by a single one. It will pay the teacher to discover who these are, have talks with them explaining his hopes and purposes, and particularly inviting their co-operation and support. If these bell sheep can be caught, the crowd will follow.¹

The Normal Group.—Typical crowd phenomena are always transient. After the crowd disperses and the members have had time to deliberate on their conduct, the mob spirit loses its hold upon them and they regain again their rationality as individuals. Besides, a crowd is often made up of persons who do not naturally make a group, but who have, for the moment, been brought together merely by accident. But forces analogous to those that produce the crowd are continually operating to weld together the members of the normal group. In such group, however, the group spirit is much more permanent, more rational, and more wholesome. Persons who are often thrown together, who communicate freely with each other, who share in the same struggles, hopes, and joys, come in time to develop a community spirit that makes them one. Even where the contacts are very indirect and the means of communication meager, some collective spirit may be engendered. We have now a certain amount of community of mind among the peoples of the whole civilized world taken together; for what is thought and felt and suffered and hoped in China or France or Sweden spreads in some measure to the rest of the nations. Within any one nation the solidarity becomes much greater; the citizens of the United States know

¹ For an excellent discussion of the application of the psychology of the crowd to class-room discipline, see Perry, *Discipline as a School Problem*, chapter 17.

and prize in common the history of their nation, have an interest centralized in the activities of Congress, economic features and struggles that are recognized as affecting all at once, a literature that we count collectively ours, and many other points in common. These common interests make us mark Americans off from the rest of humanity and feel with them a kinship that we do not share with others. When we come nearer—to the State, the city, or village, the school, the club, the social set to which we belong, the gang, the local church, the family—we find this solidarity immensely increased. Within any one of the groups sympathy is strong; feelings, tastes and ideas are likely to be much alike; and the disposition to co-operate and mutually to support each other is prominent. The collection of individuals is no longer a mere aggregate but has become a compact unit.

The Social Mind.—Sociologists call this unity of spirit that comes to dominate a group the *social mind*. It is alleged that the group has a centralized will and a centralized process of ideation comparable to that of the individual. Of course, this collective mind is not localized in a special body but in the brains of the several members. Yet the members of the group do in time, through their impact on each other, shape their intellectual reactions into points of view that dominate the group; arrive at common decisions and give these force through collective efforts at execution; and mature like tastes, taboos, prejudices, friendships, and hostilities. The socialization here is much more rational than that of the crowd. It moves more slowly. There is more time to let suggestions soak, and those that ultimately mold the common attitude must have proved their fitness by finding a deeper and more continuous echo in the soul of the modal members. Being thus adapted to the group, and reinforced for the original dissenters by the tenacious approval of the majority, they win over in time, if they are important, the whole set. If they cannot do so, the group will split into subgroups. Thus each individual comes to epitomize the whole of the group to which

he belongs. You can get a true picture of all from the image of one. (*Illustrate.*)

Effect of Cross-Grouping.—This principle is obscured, however, by the interlacing of groups. Any one individual belongs to many sets and his reactions to one sort of situation are affected by one kind of pressure and those to another by another kind of pressure. Thus one's religious life may be shared with one group of people, his economic life with another group, and his literary tastes with a third. For this reason there is, among any one collection of individuals bound together at any one moment, much less homogeneity than the principles of social psychology would lead one at first to expect. But within each of the spheres in which a functional group life has grown up, solidarity of thinking, feeling, and willing is present.

Forces Making for Socialization.—There are certain subjective conditions that make for the sympathetic like-mindedness in which the homogeneity of the spontaneous group is grounded. Professor Giddings enumerates these as follows: (1) impulsive like response; (2) suggestibility; (3) reciprocal consciousness of kind; (4) the emblem or shibboleth (as the flag in America or the expression "The Fatherland" in Germany); (5) imitativeness; and (6) contagious emotion. But these subjective forces operate only when certain objective conditions are present, and to the extent to which these latter obtain. Among these favoring objective conditions may be mentioned the following:

(1) *Aggregation.*—Where people are thrown together into close physical contact there is a strong probability that community will grow up among them. When they are daily in face-to-face contact this probability becomes near-certainty. So great is the socializing pressure of physical contiguity that, if persons who are constantly in immediate contact do not mingle in spirit, the very opposite is likely to happen and intense antagonism will spring up between them. Conversely it is difficult, though not impossible, to make a spiritually compact group out of members who are scattered.

What light does this throw on the conditions under which solidarity can be developed among the students of school or college? Is it ever an impossible task to develop "school spirit"? What relation has the size of the school to this?

(2) *Communication*.—Even persons in close proximity with each other will not develop much solidarity unless they can freely communicate—indeed, none if you exclude the possibility of interpreting ideas and emotions from actions and from the expression of the face. It has been shown that those classes of our immigrants who cling to their native language instead of learning the English take very slowly to Americanization. On the other hand, when people read the same papers, discuss with each other in public meetings, or engage in friendly chats, they are in the process of being born again into a common brotherhood. It is the possibility of communication over a wide extent of space that makes feasible other than face-to-face groups.

What implication does this carry for training for democracy? For developing school spirit among pupils? For nurturing class consciousness among teachers?

(3) *Community of Interest*. To be together and talk together affords only the primary conditions of socialization. What there is to communicate about is of the utmost importance. Mere idle talk does not go far as a socializing force. But when people have had the same struggles and sorrows, the same joys and triumphs, the same hopes and aspirations, then their communications with each other draw them together as Jonathan was drawn to David and Damon to Pythias. Professor Ross says:

"From the reminiscences exchanged in an 'old settlers day' it is evident that what knit the hearts of the pioneers was the vivid experiences they passed through together—intense social pleasure and merry-makings and celebrations as well as suffering and anxiety caused by floods, draughts, blizzards, prairie fires, and Indian outbreaks. If foreign born are in-

terspersed among native settlers such experiences bring them all into sympathetic relations, and then the interchange of ideas gradually assimilates them. . . . Common leadership, perils, and maltreatment, as well as common deliverance, success, and triumph, socialize those who react to them in the same way. But unlike reaction to strains sunders men, as we see in the antipathy of martyrs to apostates, of fighters to skulkers, of rebels to cringers. Not those *in the same situation* but those who feel and act alike in the same situation, are drawn together.”¹ (*Illustrate from school life*).

(4) *Co-operation*.—People who find themselves working for the same ends are socialized thereby—those seeking to elect an independent mayor for the city, the active workers in an established political party, laborers agitating together for an improvement of their status as workers, employers seeking to better economic conditions along common lines, Christians trying to save those not in any church. In the school this principle is now being utilized through the encouragement of group projects. (*Name other ways*)

(5) *The Common Meal*.—“From savage life to our own, eating and drinking has been the favorite reviver of good feeling, and the seal of amity.” One of the few redeeming features of the open saloon was the socializing influence of drinking together. When we wish to launch an enterprise with the maximum prospect of enthusiasm we are likely to start it off with a banquet.

How much of the socializing value of group camping comes out of the eating together? What other forces help?

(6) *The Festival*.—These are of wide variety and have been a great unifying force in society from the earliest times. They originated in connection with religion, and, as the word indicates, centered about a feast, though this last feature was later lost. The festival was an occasion of public rejoicing,

¹ *Principles of Sociology*, pp. 396-7. Published by the Century Co..

first connected with ancestor worship, then with gratitude to the great luminaries through celebrating the changes of the moon. As peoples settled down to agricultural pursuits they responded with celebration of the processions of the seasons and, as empires later developed, they expressed by festivals their gratitude for victories or other blessings. There were sixty festival days on the Greek calendar and probably still more on the Roman. In the United States we recognize nationally only six, but there are many other local celebrations to say nothing of birthdays and other family celebrations. Tarde speaks of the festival as:

“That sovereign process by which the social logic of the sentiments resolves all possible discords, private enmities, envies, contempts, jealousies, moral opposition of all sorts, into an immense unison formed by the periodic submergence of all the secondary sentiments into a greater and stronger feeling, into a collective hatred or love for some great object, which gives the tone to all hearts and transforms their dissonances into a higher harmony.”¹

Interpret as festivals celebrations of athletic victories, and pep-rallies in school. What value have they?

(7) *Sport*.—To play together almost invariably develops community of spirit. For those who play as a group on one side of a contest, the game sets a common end to be striven for and provides an occasion for common joys in triumph or common losses in defeat. For those in opposite groups it develops mutual respect and the spirit of adjustment on a give-and-take basis. “In congested urban quarters the passion for play which springs up after the opening of a recreation center levels moldering barriers between nationalities and confessions, Americanizes the foreign born, and creates a neighborhood consciousness. With access to wholesome pleasures the laborer no longer drinks and beats his wife in sheer reaction from his grinding existence.”²

¹ Quoted by Ross.

² Ross, *Principles of Sociology*, p. 403.

Play levels up the inequalities between man and man. When prince can be tackled by peasant it is impossible for the former to retain in full measure his contempt for the latter. "A goal kick by the son of a Polish shoveler, a prize tabouret from the hands of the son of a Sicilian fruit man, a medal for dramatic recitation won by the daughter of a pedlar from the Ghetto, undermine old noxious prejudices which otherwise would pass down to the next generation."¹ There is nothing better than the vigorous interaction of personalities in play—the friendly conflicts, the intense co-operation, and the fair and impartial adjustments to each other—for the socialization of individuals.

Does it affect only those who participate or spectators as well? Is it true of intercollegiate athletics as we now have them? Could intramural contests serve the purpose as well as inter-school ones?

PROBLEMS FOR RESEARCH AND DISCUSSION

1. Gather from members of the class ten or more cases of mob activity. Let these be preferably cases observed, or participated in, by the reporting members themselves, though these may be supplemented by cases from history. Have a detailed account written out for each case. *After* these accounts have been written, compare them with what was said in the text.
2. Collect a number of concrete cases where pupils struck, or "ran away with the teacher," or otherwise displayed the characteristics of a crowd. Analyze the cases, locate the causes, and propose remedies.
3. Make a collection of slogans, "key-note speeches," and sermons that stampede the masses. Study these for their intellectual and moral content.
4. When governments have been afraid of revolution, what attitude have they taken toward the right of the people to assemble? Why? Give examples.
5. Colleges like to have students and alumni participate in giving to the institution, even though the amount they can afford to give is little compared with what can be raised from other sources. Why? Is giving money the only way in which to achieve the end here in view? How else? How could this principle be utilized in elementary and secondary schools?

¹ Ross, *Principles of Sociology*, p. 404.

6. Try constructing a test that will measure certain ideas and biases on which group pressures would be likely to exert an influence. Measure with it a random sampling of people without reference to group affinities. Then measure persons who are members of the same primary group. How much smaller is the coefficient of variability in the second case than in the first? If such measurement could be made it would give a quantitative index of the power of association and socialization. A *science* of sociology must find some such means of quantitative control over its generalizations.

REFERENCES FOR FURTHER READING

- BLACKMAR AND GILLIN, *Outlines of Sociology*, part 3, chapters 1 and 4. (Chapter 1 discusses the process of socialization; chapter 4, the social mind.)
- COOLEY, C. H., *Social Organization*, chapters 1 and 2. (Social and individual aspects of mind.)
- CLOW, F. R., *Principles of Educational Sociology*, chapter 6. (Discusses the social mind, giving many illustrations of crowd behavior in school.)
- GIDDINGS, FRANKLIN, *Inductive Sociology*, Part II. (An excellent condensed, analytic account of the forces and conditions producing social solidarity.)
- PERRY, ARTHUR, *Discipline as a School Problem*, chapter 17. (A very useful chapter on the control of a class in the light of crowd psychology.)
- PARK AND BURGESS, *Introduction to the Science of Sociology*, pages 878-933. (A fine collection of accounts of concrete cases of crowd behavior.)
- ROSS, E. A., *Principles of Sociology*, chapter 32. (The forces making for socialization.)
- , *Social Psychology*, chapters 3, 4, and 5. (A brilliant discussion of crowd psychology second only to the classic work of LeBon.)
- LEBON, GUSTAVE, *The Crowd*. (The classic work on crowd psychology.)
- SMITH, WALTER R., *Introduction to Educational Sociology*, chapter 2. (The individual and the social group. Educational applications.)
- SNEDDEN, DAVID, *Educational Sociology*, chapter 15. (A very sane, short chapter on the struggle for individuality against the socializing force of the group.)

CHAPTER XIV

SOCIAL CONTROL

The Problem of Social Control.—In the preceding chapter we saw that there are mighty centripetal forces dragging individuals into compact group life. But seldom are these instinctive forces alone sufficient to hold all individuals in line, under the artificial conditions of modern civilization, as completely as the optimum interests of the group seem to demand. Consequently, various pressures are resorted to in order to coerce the recalcitrants into harmony with the whole. Suggestion and example keep constantly before the individual the ideals of the group and impel him towards these standards. What he does that accords with the group outlook is met with silent or voiced approval, which he finds pleasant; what he does in contravention of the group's standards is met with disapproval and is thereby made repugnant to him for the future. Constantly he hears appeals to the traditions of the group; "It is not our way to do as you have done"; "Nobody ever saw one of our men do so and so"; "We believe thus and so"; "From the earliest days our organization has taken a leading position in this and this." Or there is explicit discussion of the relation of questionable acts to the interest and standards of the group, with resultant solidarity of conviction regarding the matter. Where all of these forces still fail to restrain the individual, overt penalties are employed to whip him into line—lynchings, hazings, jail sentences, or fines. The complex of processes by which groups thus adjust new individuals or other units, or hold old members, to courses of action believed to be for the general good, is called *social control*.

Small Versus Large Groups.—The central problem of social control is to adjust small group interests to large group ones.

Small group loyalties are older than large group ones, and hence more deeply ingrained in man's instincts. All of man's primitive affinities were with primary groups. Federations sat uneasily upon him. Indeed it was almost universal for the primitive man to hate all persons outside of his immediate clan. Earlier still, we may suppose, his interests were confined largely within himself. Even if there never was a time when men lived an isolated life, some of their pre-human ancestors certainly did so, and these very ancient selfish instincts continued basic in life, only loosely covered over and supplemented by altruistic ones. In a crisis instincts assert themselves in an order determined by the extent to which they have become interwoven into the fundamental nature of the creature, and in general this is the order of phylo-genetic acquisition—from small group, beginning with the individual, to large group. To maintain the equilibrium of interests that current civilization, with its large dependence on federated activities, demands, there is necessitated a constant struggle to hold in proper check small group and individual self-aggrandizements. Unrighteousness consists mostly in failure to conform to large group wishes.

Interpret in terms of conflict between large group and small group interest: automobilists disregarding the rights of pedestrians or the rights of other automobilists; theft; cheating; favoritism; breaking game laws; running a town in the interest of "business"; "pork-barrel" politics; sectionalism in civic matters: national aggression. In respect to school matters interpret similarly: the individual disturbing discipline; lack of sportsmanship in play; fraternity biases in school politics; the sheltering of a malefactor out of "loyalty." Also consider from this standpoint the impediments that are often thrown in the way of progress in industrial, educational, or religious reorganization.

The Small Group and the Motivation of School Activities.—The problems of discipline and of motivation of school work grow largely out of the conflict between small group and large group interests. From the standpoint of the society of adults as

a whole it is important that children make good use of their school time by studying hard and systematically. This broad social point of view is represented by the teacher. But the pupils often fail to see the advantage of study. In their own circle they value different things which conflict with work. Not only is there a natural antipathy to work on the part of individuals but there is likely to be a "gentleman's understanding" in the group that it is morbid "to be a bookworm." The motivation of study necessitates the supplanting of the narrow evaluations natural to the small group with the broader evaluations of society as a whole. To bring immature youngsters around to the standpoint and the evaluations of the society of adults, especially when the whole group must be dragged on together, is no small task.

Do teachers ever succeed in getting the school children to the place where they collectively approve the aims for which the teacher, and society through the teacher, are striving; throw themselves spontaneously into work; and back up the work spirit with group sanctions? If so, under what conditions—when driven to it by disciplinary measures or when converted to the larger point of view by rationalizing methods? What are "rationalizing methods" in this connection?

Let us take as a specific example, interest in the improvement of habits of expression. It is never necessary to teach persons to speak to their own set. The vernacular needed for making one's self clear to one's own fellows one gets by imitation. It is only in communicating with persons of another level of speech that one becomes aware of one's own deficiencies. Grammatical errors, provincialisms, odd pronunciations and slang that would have passed without challenging attention in one's own crowd, because they are the usual and expected thing, obtrude themselves and shock the sensibilities when addressed to persons who are unaccustomed to them. If one is to be prepared for admission without embarrassment to the larger circle of his fellows he must be trained to their modes of expression. So in educating him to habits of good English—which is only the English that so-

ciety as a whole approves—a teacher is opposing his small group ways with the large group ways. The same thing is true in improving tastes in art, music, and literature. Particularly is this principle of developing large group consciousness involved in moral and in civic instruction.

Show how, using as illustrations the rationalization of loyalty, respect for property, honesty, truthfulness, and adhesion to social conventions. See Bobbitt, *The Curriculum*, chapter 12.

Forces of Social Control.—There are various means of pressure to which society resorts for the purpose of driving individuals into conformity with the general needs. Some of these are entirely unplanned by society, functioning merely as bits of machinery that the forces of evolution have brought out. This was particularly true in the early stages of human history, but obtains in some measure even in the present time. But some of the means are definitely telic in character, having been consciously planned by the leaders of society to bring men to a desiderated state of mind. This is particularly true in present day life, but obtained to some extent even in the earliest stages. These forces that make a line of activity seem worthwhile are called technically *sanctions*. They may depend upon pressure from the gods—religious sanctions; upon pressure of man upon man directly—civic sanctions; or upon the lure of the worth inherent in the act itself,—ethical sanctions. We shall group under these three headings, and very briefly discuss in order, the forms of social control treated at length by Professor Ross in his excellent volume entitled *Social Control*.

I. RELIGIOUS SANCTIONS

Belief in Supernatural Beings.—The gods have not always been regarded as using their power to hold men to righteous conduct. Among many undeveloped peoples the gods were positively immoral and set very bad examples for their followers. More often they were indifferent to the affairs of

men, or at least to all of their shortcomings except neglect of observance of the religious ceremonies. Dr. Lumholtz states that the only wrong toward a god a Tarahnwar of Mexico ever considers himself guilty of is that he does not dance enough. "For this offense he asks pardon. Whatever bad thoughts or actions toward man he may have on his conscience are settled between himself and the person offended." But for the most part religion is used as a bulwark for morality. Even among some very primitive peoples there is some notion that the gods approve and reward right conduct and punish wrong. It is related that a Fuegian killed a wild man who had stolen a bird from him, but he was very sorry for it afterwards when the "Great Black Man" of the woods showed his disapproval by sending a storm. In telling the story the offender's brother said: "Rain come down—snow come down—wind blow—blow—very much blow. Very bad to kill man. Big man in woods no like it, he very angry." This belief that the gods are on the side of morality not only grew spontaneously in many places but it was early laid hold of and manipulated by the priesthood as a means of controlling the people. Laws were announced as the commands of the deity and their infraction considered a religious offense. This principle of using otherworld sanctions to hold men to the paths of rectitude has, in many countries, been so elaborately worked out and entrenched in custom that many persons have contended the teaching of morals cannot rest on other than a religious basis.

Forms of Belief.—Professor Ross has pointed out five forms religious sanctions may take as an instrument for controlling conduct toward socially valuable ends.

1. The belief that a supernatural being, or beings, watches one's conduct and takes cognizance of the good and the bad.

2. Belief in the transmigration of souls, according to which one will live in the form of a higher or lower—hence happier or unhappier—creature in his next incarnation, depending on the righteousness of his conduct in this one.

3. Belief in a heaven or hell in which the good will be recompensed for their righteousness in this life and the wicked punished for their sins.

4. Penances exacted by ecclesiastics—abstinences, humiliations, vigils, alms, pilgrimages and, in extreme cases, excommunication. These were powerful instruments of control among the barbarians whom the church first attempted to tame and for whom a remote heaven and hell made too weak an appeal.

5. Belief that deceased loved ones may observe one's conduct and be pleased or pained at what one does in this life. Many a person has been kept from wrong by a sense of loyalty to such guardian angels.

Social Religion.—Among some people in perhaps every age, and among many people in recent years, god-sanctions lose their otherworldly character and come to be grounded in consideration of the good of one's fellows. One is not actuated in his conduct by fear of the vengeance of a god outside the world, or by the hope of personal rewards, but by the spirit of service to his fellow men. When he justifies this altruistic attitude by a theology, it is likely to be one that looks for God within the world, expressing himself through the sufferings and hopes and achievements of men, and having his being exhausted in these finite expressions of it; so that the consummation toward which the loyal are working is a state of universal brotherhood where each is servant of all, where it is more blessed to give than to receive, where every man is willing to "lose his life" in saving his brother's, and where a spirit of dynamic co-operation permeates and dominates the whole of the social order. Such religion was, for the most part, the program of Jesus and was covered by him with the expression, "The Kingdom of God" or "The Kingdom of Heaven." This we have come to call "social religion." It is obvious that its sanctions are very different from those of the more magical religion, with its anthropomorphic gods, discussed above, that they reach individuals

of a wholly different temperament, and that they constitute a very enviable and very mighty means of social control in the case of the elect who are really reached by them, in fact and not merely in protestation.

II. CIVIC SANCTIONS

I am stretching the term *civic* here to cover all those sanctions that depend upon the pressure of men upon the individual directly.

Social Suggestion.—The first of these is social suggestion. Very little of what anyone thinks or does has its origin strictly within him. He may feel that he has "made up his own mind" but, as a matter of fact, in most of his decisions there are present extremely large elements contributed by his fellows. The heroism of one's companions on a sinking vessel keeps one reminded of his own obligation to play the man and holds him to the execution of that obligation; the belief that others are beating the tax collector suggests the idea that one might do so himself and sustains him in carrying out the act; the realization that others expect honesty impels one toward honest deeds; the knowledge that some people think very disparagingly of a certain individual shapes up suspicions in one's own mind. Any idea, however launched in consciousness, has an actively dynamic character and the suggestions by which the society in which one is immersed are inducing ideas in his mind, are potent forces in bending his actions this way or that—in other words, in social control.

Forms of Suggestion.—1. *Example.* There are several different forms through which suggestion may exert its pressure. The simplest and most effective is *example*. Teachers often express sentiments which at heart they do not really feel. This is particularly true in teaching appreciation of literature and art, but may also be true in respect to values of studies, morals, principles of citizenship, etc. But these expressions seldom influence pupils much. They somehow feel their hollowness and catch instead, as a motivating force,

the thing that the teacher himself really is. In the same way society often maintains a hypocritical front, purporting to condemn certain acts to which secretly men are not averse; in this case, too, it is not the pious pretense but the real example lying back of it that influences the conduct of others. The example set by any one has suggestive power. Even the mirth provoking stammerer in a school room may start others to stuttering, or the slang of the most despised pupil may be taken up by others. But the example is much more likely to be imitated if the person setting it has prestige. If one's prestige is not only with individuals but with the group as a whole, the dynamic effect of it is greatly increased. Thus a teacher whom the class agrees in calling "a good scout" can shape his pupils almost as he will, merely by the example he sets. But when example emanates not only from single individuals but from the group as its customary mode of behavior, then it becomes all-compelling. Then the thing has become "the fashion." "Everybody" is doing it. Wherever one looks he sees it and with whomever he talks he has it thrust on his attention. Under such conditions it is nearly certain that he will be propelled into like action.

Is it chiefly teaching or example that assimilates a new-comer to the spirit of the school, or of any other group? Has the efficacy of group example any bearing upon the fact that a teacher's success or failure is likely to be cumulative in degree? Has it any bearing upon the persistence of traditional virtues or vices within a college or other group?

2. *Praise accorded by society* to individuals, especially dead heroes for approved conduct. Shafts are erected to the memory of persons who rendered some notable service. Their names are recorded in history and embellished by art and song. Eulogies are pronounced over them enumerating their virtuous deeds. These public laudations cast a glamor over the deeds that are praised and impel living individuals to emulate them.

What examples in school? Has this any relation to "expurgating" school history? What relation?

3. *Faith in the unrealized possibilities of men.*—Every normal person would exert himself mightily to be what others expect him to be. One who is accustomed to be continually suspected is pretty likely to justify his reputation whenever a good opportunity occurs. Conversely if one has the confidence of one's acquaintances, the very fact that they believe him capable of certain reaches of conduct will inspire in him confidence in himself and make him dismiss as incompatible with his nature acts contrary to his reputation. A person's opinion of himself is largely a social product—a reflection of opinion others have of him. This principle is put to application in delicate methods of controlling conduct. The street car sign reads "gentlemen *will* not spit on the floor" instead of saying baldly they "must not." "England expects every man to do his duty" is perhaps the most effective form in which the appeal could be made. All politicians have learned to express trust in the people. Near election time this takes the form of extravagant claims of victory which sometimes mount to the ridiculous. Diplomatic language is always couched in terms that hint the other nation will of course do the right thing now that it is being pointed out. There is thus maintained a "grand illusion" of pervasive goodness which the facts are known not to warrant but which nevertheless screws society to a higher level than that at which it would otherwise stick.

"We now see," says Ross, "why there reigns in society this stubborn and absurd confidence, that neither facts nor ridicule can overthrow. It is a kind of bluffing in the game with the Evil One. The frank trust that of course everybody is going to be pure, honest, and public spirited, acts on many men as a hint they cannot resist. It is dimly felt that to abandon this assumption is to lose a certain stimulus to goodness."

At no place does the stimulus of this optimism operate more forcefully than in school where the persons dealt with are peculiarly sensitive to any appreciation of their worth and dignity.

"It has been justly said," observes Guyau, "that the art of managing the young consists, before anything else, in assuming them to be as good as they wish themselves to be." "At Rugby School, Arnold always seemed to place implicit reliance in the word of his pupils. If a boy denied anything, he considered the matter settled and would not investigate further. Consequently the sentiment grew up that it was a shame to tell Arnold a lie, as he always believed it."

Give several illustrations of the operation of this principle as it affects (1) the mastery of difficult lessons; (2) avoiding unauthorized helps; (3) disciplinary problems about the school; (4) honorable relations among students outside of school.

4. *Custom and taboo*.—Suggestion has dynamic force even though the thing thereby proposed is new. Indeed there are occasions, and according to Tarde even brief epochs, when the very fact that the suggestion is new, particularly if it emanates from the mass as a fad in dress or manner, makes it the more attractive. But generally an idea has much greater prestige and power when grounded in custom. This is particularly true with less developed people. Among savages the only substantial authority is that which comes down from custom. "Our fathers did it, and therefore we do it," is all the explanation they consider necessary. When Spencer and Gillin tried to find out from the native Australians the origin of their sacred sticks, they were told that the Alcheringa men, their ancestors, had them. When pressed as to why the Alcheringa men used them, the natives were only amused, thinking it ridiculous to raise any question of justification for a custom followed by the Alcheringa. Among more developed tribes a foundation is usually sought in custom for any change, even though it is a mere pretense. Thus

the council of elders in a Hindoo village, when arranging the distribution of water for irrigation purposes, pretend to distribute it according to customs that have existed from antiquity, although no artificial water supply had previously ever been thought of. Even now, in politics and in religion, leaders are accustomed to appeal to the practices of the past in defense of their advocacy of better conditions. In this country we are now in a period when avowedly we have little patience with adherence to custom, when the very fact that a thing is confessedly old prejudices us against it; yet beneath the surface we are much more deeply rooted in custom than we know, and it serves as a firm anchorage to hold us steady amid the storms of passion.

The psychological form in which the force of custom makes itself felt is the *taboo*. As long as we are reacting in the accustomed manner, we feel at ease; the moment we make an untried move, our emotions become wrought up, producing a state of pain which centers upon a novel act and causes us to draw back from it.¹ The new thing is thus taboo—avoided for reasons that rest merely in the feelings. Comparatively few people have thought out the reasons why a girl should not be conversing with a man in some dark doorway at midnight; for most persons it is enough that “nice girls do not do that.” So, too, few persons have ratiocinated about stealing, lying, being unsportsmanlike or a “piker.” Those things are merely taboo; one “intuitively” feels that it would be terrible to do them. As a matter of fact they are felt to be disgraceful simply because people so unanimously have been considering them disgraceful; one is conforming to the custom, held to it by the emotional stress occasioned by any temptation to deviate therefrom.

The illustration cited above from Hindoo life shows that the psychological effect can be utilized even where custom is not involved. If, in a schoolroom, a teacher continually refers to a certain practice with the shudder that a tabooed

¹ See Peters, *Human Conduct*, Chapter 5.

act would naturally call forth, his repugnance will be more or less caught by his disciples. But if the pupils find that his antipathy is not felt generally by other intelligent people (people with prestige), the taboo will break down. If, however, the repugnance toward the act is expressed everywhere one turns, as is the case where it is grounded in custom, it will soon come to grip firmly those on whom it plays. Taboo, of course, operates only negatively (*compare it with conscience in this respect*). But it would probably be safe to say that three-fourths of human inhibitions rest upon it and not more than one-fourth on reason.

What bearing has this on moral education? Sex instruction? Education in professional ethics? When school morale is waning, could any good use be made of visits by "old grads" from the better days? What value may there be in reminiscences in churches? Where else?

5. *Education*.—Finally our system of education of the young is itself a comprehensive and highly purposive system of suggestions driving on toward the end of bending the youth's will to the interests of society. This is, of course, not true of all elements of education. Training for various kinds of skill and for reasoning ability could scarcely be regarded as forms of suggestion. But besides skills and reasoning abilities the educator also sets up as goals the development in the individual of certain ideals, interests, prejudices, perspectives and appreciations, and organizes his materials for the production of these effects. The creation of these is dependent upon the potency of suggestion. The teacher selects facts, arranges subject-matter in deliberately chosen order, and marshals his illustrations in such way as to eventuate in insights and propensities that will drive the pupil into desiderated types of conduct throughout the rest of his life. He is not, as is well known, only after memorization of the content of civics, physiology, history, or literature; an important value of these studies lies for him in the suggestions for citizen-

ship and morality that come incidentally but powerfully out of these pregnant materials.

Public Opinion.—When the dynamic attitudes back of social suggestion become articulate and self-conscious, they constitute public opinion. Just as there are feelings dominating the group which the individual catches by radiation, and practices which he appropriates by imitation, so there are convictions that belong essentially to the group as a compact unit, which convictions press continually upon individuals to hold them in line. If any one acts in harmony with these group convictions as to what is right, he receives evidences of social approval—rewards, confidence, praise, or at least a silent approbation that can be felt even though unexpressed. But if one conflicts with these convictions, he encounters poignant evidence of social displeasure—coldness of manner, lack of social consideration, snobs, slights, cat-calls on the street, hoots from the mob, “the stony silence of the dinner party,” attacks through the press, economic boycotts, or even egging, whipping, riding on a rail, or tarring-and-feathering. An aroused public opinion is a terribly effective thing. No individual can stand long against it without being broken. Even large and strongly organized groups have learned that they can not successfully deny it. In all industrial disputes both sides try frantically to get the support of public opinion. They are careful how they proceed lest they offend the public and they often spend large sums in advertising to convince the people of the justice of their position. It is now generally recognized that no labor strike can be won without the backing of public opinion. Similarly no officer can succeed in his work except public opinion be with him, nor can any political policy be put through without it. Conversely its support makes success for officer or policy easy. Obviously the same thing can be said regarding a teacher or superintendent and his policies.

Illustrate power of public opinion in the management of a school.

Advantages and disadvantages of public opinion as a means of social control. There are certain merits about public opinion as a force in social control. Ross gives them as follows:

1. It has a wide gamut of influences. It can cover anything necessary while law is restricted by constitutional limitations and religion by limitations set by custom.
2. It is less mechanical in operation than law.
3. It enforces moral claims that are too intangible for the law to reach.
4. "Its premonitory growl is more preventive than the silent menace of justice."
5. "The sanctions of public opinion are cheap."

On the other hand, there are also some weaknesses about it as a means of control.

1. Its requirements are not clear, precise, and definite. It is quite possible for one to be mistaken as to what sentiment will support until after one has acted.
2. It is not duly deliberative and may therefore be unjust.
3. It is likely to be transient. If an offender can hide for a while during the heat of resentment, his offense is likely soon to be forgiven and forgotten.
4. Public opinion is seldom unanimous and this conflict may greatly soften its sting.
5. "The might of public wrath is destroyed by anything that diverts it from an individual and spreads it harmlessly over a net work of administrative responsibility." Hence it does not exert an effective restraint on corporations or legislative bodies where responsibility cannot be localized.
6. "It is instinctive and passionate, little apt to keep in view any distant end, such as conservation of order."
7. It is extremely conservative. Prophets have always been obliged to win their way against it.

Law.—When the convictions of the group become still more articulate and definite than they are when manifested in public opinion, they may be enacted into *laws*. These rules

are then mechanically applied to coerce individuals into harmony with the group will by inflicting punishments upon persons who violate them. It is evident that only definite, overt acts can be covered by law. Motives cannot be reached, nor can practices that are so general or so varied that they cannot be clearly defined in advance of their execution. It is extremely important also to note that there can be no effective law that is not an expression of the dominant group will. Law is only developed public opinion crystallized into written form. It would not be needed at all if opinion were unanimously shared by the members of the group and the convictions in question always put into practice by all those who hold them. But in any group there are always some laggards. For these laws are needed. The putting of sentiment into a statute is just a device for clarifying the ideas of the majority, or other sociologically dominant element, who determine the make-up of "the social mind" of the group and for whipping the recalcitrant minority into line with the dominant will. If written into the statute books on any other basis, laws are certain to prove abortive.

Is this true only in a democracy, or under any form of government? The rules passed by any organized group are really laws; do the principles mentioned above apply to them? Do they apply to rules governing the school? Would it be possible to have in school only such rules as dominant group sentiment required? What group? Could a school be won to sympathy with, and approval of, a rule by the teachers' explanation of its necessity? Would that pay?

III. ETHICAL (WORTH) SANCTIONS

Sense of Justice and Resentment of Injustice.—There springs up very early, both in the history of the race and in the development of the individual, a sense of justice and resentment against injustice. It is not, however, prevalent in the very early stages, either of society or of individual life. Although related to the instinct of sympathy, it is not itself an instinct but depends upon reflection, the development of which

requires some maturity. Moreover, it is limited by the same conditions that limit the operation of sympathy. Before one can sympathize with another it is necessary that he feel a certain likeness to him. The child does not, out of sympathy, refrain from torturing the toad because it has never occurred to him that this kicking creature might be experiencing the same sort of pain the child would suffer under like treatment. So, too, savages torture strangers, and more developed peoples work injustice upon Jews or negroes, because they cannot quite realize that persons different from them in certain obvious respects are like them in fundamental feelings. In the same way the sense of justice is likely to be blunted except among acknowledged equals.

But in dealing with equals the child at play soon comes to feel himself in duty bound to play fair just as, long ago, the savage felt bound to entertain hospitably the guest who entered his hut even though a deadly enemy; or just as the knight felt compelled to dismount when his opponent had been unhorsed, or to throw away his spear when his enemy's had been broken; or as the modern business man feels constrained to meet fair and open dealing with like dealing. The cycle in which the disposition thus to react moves is probably this: (1) one is oneself unjustly treated and deeply resents it; (2) one sees a friend unfairly dealt with and, out of sympathy, resents the act and finds others also sharing the resentment; (3) one then himself acts unjustly, or is tempted to do so, and his experience with the first two situations makes him realize how his conduct must look to others. He stands aside and looks at himself as an impartial spectator. To be despised when he craves sympathy, is distasteful and the type of act that draws the resentment upon him becomes for him taboo. Thus he separates the deed from his own personality and comes to hate injustice by whomsoever perpetrated, himself included. Thereafter he weighs his conduct as an impartial spectator and his sense of fitness impels him to practice just as many restraints as his opponent practices toward him.

This principle of honor is, except for a comparatively small number of social pervers, an extremely active, pervasive, and significant engine for controlling the conduct of men in the interests of order and righteousness.

But are a sense of justice and resentment of injustice *social* controls or only individual controls? Ross does not include them under *social control*. Yet they take on social aspects. For, on the one hand, what particular acts the individual considers just or unjust is largely determined by the evaluations of the group to which he belongs; and, on the other hand, the approbation of justice, and particularly the resentment of injustice, are quite often group reactions which vigorously coerce the individual. Practically all lynchings are the outcome of group resentment of some particular act of injustice and in every case of intentional wrong there is manifested some degree of resentment on the part of society.

Can resentment be deliberately manipulated and strengthened as a means of control? Illustrate. How strong is this sense among grade pupils? Among high school students? Among college students? What relation has it to suspected partiality on the part of teachers? To undeserved punishments? To unwarranted conduct on the part of a pupil?

Æsthetic Appeals.—Next there is a group of sanctions that rest upon æsthetic appeals. Although paintings and sculpture serve chiefly as sources of sensuous delight rather than as means of social control, they can be used to influence conduct, not only ennobling life through an undefined exaltation but imparting specific ideals and strengthening definite desiderated attitudes and reactions. Music is much more potent as an engine of control. Song and march and melody can be used to arouse certain emotions and to restrain others. In the past it has served notably in times of war, but it can also well be used to prompt men to right conduct in peace. Literature—poetry, exalted prose, artistic fiction, drama—is a tool of inestimable value in influencing the character and the conduct of a voraciously reading public. Fortunately for purposes of

social control, our literature as a whole is highly idealized, making virtuous conduct attractive and vicious conduct repulsive beyond what strictly realistic writings could do. Ceremony, too, is effective in "throwing the noose over the neck" of the members of society and holding them to desired lines of conduct. The church ritual, the marriage ceremony, the formalities of the court, initiation mysteries, the legal verbiage of contracts, enable these institutions to wield a power they could not otherwise maintain. All of these forces operate, not by threatening punishment nor by offering rewards, but by making the act seem so attractive that one wishes to do it for its own sake.

Illustrate how art could be made a factor in controlling conduct. Same with song. Look up the quotation in Ross, *Social Control*, pages 157-58, condemning our literature for being edited in the interest of public morality, and react on it. What bearing has the status of ceremony as a means of control on the question of familiarity between teacher and pupils? On the amount of informality permissible in the army? On the simplification of the church service? On an exceptional amount of "democracy" in the attitude of the pastor?

Personal Ideals.—The best members of society do not wait to be coerced from without; they direct themselves from within. They have set up goals as criteria of their own conduct and their severest chastisement or dearest approbation is that which arises out of their judgment of their own success. To their ideals they are held by a sense of honor on the one hand or of shame on the other. The personal ideals that govern men are, as Professor Ross points out, of two kinds: in the first place there are certain standards expected of the group to which one belongs—which one voluntarily tries to live up to. These are socially imposed standards—expressions of the "social mind"—worked out through an evolutionary process and given substance by the example of perhaps several generations of the faithful. Thus certain things have come to be expected of preachers and, because one is a minister, he will try hard to fulfill the expectations lest he disgrace the

ministry. Likewise the soldier, the physician, the teacher, the citizen of a state, the student at a beloved school, the gentleman, will all struggle to exemplify the standards of their respective groups that they may not discredit their classes or professions. The ideal of the group to which they belong they have appropriated as their own guide. In the second place, strong individuals may hew out their own course merely by reflecting upon what would be right for them to do. They act on principles. They follow their star whether it chance to lead them through the crowded market place or over the lonely desert. Not that there are no social elements in this personal ideal, for it has continual reference to one's adjustments to his fellows and, too, his eyes have been opened to most of the evaluations out of which the ideal is constructed by the heritage he has received from his group; but he has worked these evaluations over, selecting, organizing, justifying, until his resulting ideal has become the rational expression of his own personality.

Enlightenment.—Finally conduct may be controlled through insight, on the part of the members of society, into the rationale of what they are expected to do. There are always reasons that make conduct right or wrong. In what Professor Perry has called the "paternalistic" procedure,¹ the leaders keep these reasons to themselves and arbitrarily dictate the course of conduct to their followers; in the "fraternalistic" procedure we let the led into the secret of where we are leading them and why. It is this "fraternalistic" policy that eventuates in control through insight. One considers the consequences of a contemplated act—consequences to himself of a physical, psychological and social nature and also consequences to others and to organized society both of the near and of the remote future—and allows or inhibits the act according to whether its results promise a balance of good or of evil.

We might have applied the term, enlightenment, not only to the highest of the ethical controls but also to the highest of

¹ "The Teaching of Ideals," *School Review*, Vol. 22, pp. 334-38.

those grouped under religious and civic. Social religion is grounded on ethical insight, not on fear of the gods; one serves one's fellows, led on by a love of humanity, because one's spiritual insight prompts him to do it as inherently right. In the highest stages of government by law, too, men do not wait for penalties to be applied, or even threatened; they accept the law as an instrument of their own making, good on the whole, and obey it because it is reasonable to do so. In such loyalty grounded on insight the rival claims of the individual and of the group are reconciled.¹

What bearing has this on the need for, and kind of, ethical instruction in school and college?

A Hierarchy of Controls.—It is evident that all social controls are not on the same level. To be governed always by fear—fear of some magically induced consequence for breaking a taboo; fear of the mental uneasiness, and perhaps the wrath of one's fellows, for violating custom; fear of the anger of the gods—is to be controlled by the lowest level of forces. To wait for the pressure of men—suggestion, the spur of public opinion, law—is to be one of the many, commonplace, modal. To act from a sense of the intrinsic worthwhileness of the end sought—from a sense of justice, beauty, personal ideals, rational insight—is to ascend to the highest levels of humanity. On the whole god-sanctions are the most compelling for those who are reached by them; legal sanctions are the most definite and tangible and belong to the realm in which men are most completely agreed; but worth sanctions are the highest. (*Agree?*) It should therefore be the aim of the makers of society to bring men, through education, to the point where they will stand on their own feet and orient themselves by an insight into the principles of righteousness as a compass; where they will travel through a maze of law without rebelling against it nor needing a police force to compel its observance, since they perceive it to be anyway the expression of their own

¹ See Peters, *Human Conduct*, chapter on "Loyalty."

rationalized wills; where they will not yield to the stampedes of mob mania nor the regressions prompted by blind instinct, nor the aberrations of popular fad, because they are steadied by a realization of their goal. Particularly is it the function of the teacher so to deal with his pupils that, at the end of their school career, they shall have learned to stand on their own feet and orient themselves in society.

Too often pupils are accustomed all the way through school only to external authority. They are disciplined by autocratic methods, and intellectual questions are settled by the fiat of the teacher, any student being counted impudent who ventures to disagree with the *ex cathedra* deliverance. When turned out of school at the end of a course of such training nothing else could be expected than that graduates should need to be driven by the police; our only hope can be that they will have been rendered so timid and docile that they will yield at the first show of the teeth of authority. Of course such autocratic management of a school, being most mechanical, is easiest and therefore most acceptable to the little pedagogue. To train in initiative and self-orientation requires the placing of responsibility on pupils as yet so immature that there will be some lapses in meeting them; but it is far better that there should be some necessary hitches in the running of a school that, in the large, equips men for self-direction in life than that the machinery of the schools should run off with perfect precision but turn out only numskulls at the end. Self-orientation, in matters of thinking and in matters of conduct, should be one big aim of education. *The best teacher is the one who most quickly makes himself unnecessary.*

Show, by illustrations, how the policy urged above would be carried out in respect to (a) matters of discipline; (b) School studies. What would be its effect on economy of time (a) at the moment; (b) in the long run?

The Pace of Progress.—If the higher types of social control are to be utilized, social policies must not too far outrun group sentiment. To the extent to which there is divergence be-

tween them, to that extent external and artificial sanctions must be invoked. If the policies run counter to the judgment of individuals they cannot be accepted through insight; for, by hypothesis, reason points the opposite way. If they do not meet with the approval of the modal members, they will not have the backing of public opinion nor effective social suggestion. They will need to be enforced by fear; and among intelligent people this is in grave danger of breaking down. Repeatedly of late states, churches, school districts, labor unions and other groups have turned in fury against leaders who were attempting to govern them autocratically in ways that did not meet their approval. Even in an autocratic state, as has been shrewdly said, "the rulers can do anything with bayonets except sit on them."

Seldom, therefore, should progress be made in institutions faster than people can be educated up to the changes. The masses must be won over either before the readjustment or afterward, and it is generally better to win them over in large part before. To be sure it is impossible to wait until everybody is convinced before putting reforms into practice, for that would require in many cases an infinite length of time. It will always be necessary to lash the minority into line by law or other external sanctions. But when the minority attempt to lash the majority into line, the result is nearly certain to prove disastrous. We have recently put into the statute books a law, the Volstead Act, which, according to the *Literary Digest* poll, is out of harmony with the will of a considerable majority of our citizenry. The consequence is that, in many sections of the country, it cannot be adequately enforced and results in weakening the popular respect for law as an institution. It is claimed, with some reason, that the wave of lawlessness that has recently swept over the country is in part due to lack of respect for law generated by the passing of statutes that were considered arbitrary and unjust by large enough numbers of people to generate by their common sentiment a public opinion. In Russia we have had a

far more notorious example of an attempt on the part of the minority to force on the majority a régime for which the latter were not prepared, with tragically disastrous results. In both cases it would have been better to restrain extreme action until an educational campaign had prepared the people for it, and then introduce the new régime into sections of the country as rapidly as public opinion would support it in the particular groups where instituted.

The same thing is true in respect to school development programs, changes in curriculums, reforms in methods of teaching and discipline, in readjustments in church procedures, in industrial reorganizations, etc. Educational propaganda in preparation of sentiment within the group in which the new measures are to be instituted should precede and actual changes follow. A state school commissioner, who was a nationally known leader of educational thought, said his friends complained that they could never quite make out whether he was a radical or a conservative. "That's easy," he replied. "I am a radical in theory and propaganda and a conservative in executive action." That is a policy well worth recommending to reformers in general.

Does this commit us to "opportunism" in a bad sense? Illustrate how this policy would work out in the introduction of pupil government into school. In a radical change in methods of teaching that a school superintendent might wish to introduce.

PROBLEMS FOR RESEARCH AND DISCUSSION

1. What development has there been in the means we use to restrain or correct: Adult criminals? Juvenile offenders? School pupils? What is the meaning of these changes? Was the movement parallel in all these fields or did it pass from one to the other?
2. Make case studies of malefactions and see to what extent they can be explained in terms of a conflict between small group and large group interests.
3. Study the practice of a dozen or more successful leaders and see how many of them are in the habit of expressing faith in their followers.
4. Study the taboo as a factor in primitive life. What analogies do we have in the present?

5. Make case studies of the formation of public opinion in six situations. From suggestions received through these map out a technique for the manipulation of public opinion in school.
6. Park and Burgess say that law need not be backed up by public opinion. See how many cases you can find that support this statement. To what extent do these refute the contention of this chapter?
7. There is an unmistakable movement against restraint from the old-time sanctions of external law and religious fears. This breakdown of the accustomed controls makes many people fear that the rising generation is drifting into the chaos of no restraints. Show, in some detail, how education can afford the necessary controls. What kind of education?
8. What is the relation of education to enlightenment? Are they absolutely synonymous as means of social control?
9. What sanctions were provided for the League of Nations? What arguments are there for and against the use, by an association of nations, of sanctions that rest on force?

REFERENCES FOR FURTHER READING

- BLACKMAR AND GILLIN, *Outlines of Sociology*, revised edition, chapter XXII.
(Mostly a brief summary of the work of Professor Ross.)
- BOBBITT, J. FRANKLIN, *The Curriculum*, chapter 12.
(Discusses the development of large group consciousness.)
- AMES, E. S., *The Psychology of Religious Experience*, chapter II.
(Custom and taboo in primitive society.)
- HAYES, E. C., *Introduction to the Study of Sociology*, Part IV.
(The problems and agencies of social control.)
- PARK AND BURGESS, *Introduction to the Science of Sociology*, chapter XII.
(Concrete materials gathered from several authors.)
- PETERS, C. C., *Human Conduct*, chapter 25.
(Chapter on loyalty.)
- ROSS, E. A., *Social Control*.
(An epoch-making discussion of social control. Nearly all later discussions of this subject have been based upon this one.)
- SNEDDEN, DAVID, *Educational Sociology*, chapter 16.
(A rather short but quite fresh discussion of social control.)
- SMITH, W. R., *Introduction to Educational Sociology*, chapter 13.
(Chapter on the socialization of discipline.)
- WESTERMARCK, EDWARD, *The Origin and Development of Moral Ideas*, Vol. II, chapters 50-52.
(Discussion, with many illustrations, of the gods as guardians of morality.)

CHAPTER XV

PROGRESS AND THE RELATION OF EDUCATION TO IT

Meaning of Progress.—Most of us are ready to assert off-hand that the world is making tremendous strides in progress, that there has been some progress in nearly every period of history, but that the advances of the last century have been by far the greatest of any period of human existence, and that we are now moving forward at a constantly accelerated pace. When, however, we give closer consideration to the implications of the movements we call progressive, we are challenged to greater caution in our assertions. From certain stand-points we have doubtless progressed but from others we have doubtless retrogressed. We have, for example, vastly improved our newspaper, and other publicity service, which is good; but, as an accompaniment of that, we have also developed a machinery and a skill for partisan propaganda that is bad. Science is giving us more and more control over nature, which is good; but some of us are using this control for unsocial ends, which is bad. We are getting better insight into the nature of morality and religion, which is freeing us from some cramping superstitions, but for many persons this replacement of the old fear sanctions by rational ones has brought about an enfeeblement of moral and religious character. We have learned to traverse space at almost incredible speed; but we have lost that quiet, dignified, and leisurely poise that was the glory of some of our grandfathers. And so we might go through the whole category of changes that time has wrought and find that our gains are seldom unmixed good.¹

¹ See Giddings, *Studies in the Theory of Human Society*, chapter on "The Costs of Progress."

We generally have to pay a price for our progress. Mackenzie, speaking of moral progress, says:

“Knowledge is power for evil as well as for good. The depth of our Hell measures the height of our Heaven; and when we are conscious of special degradation and misery in the midst of a high civilization, we may repeat, with Milton’s Satan, ‘No wonder fallen such pernicious heights.’”¹

Progress Dependent on Point of View.—Whether we consider that a certain change, or series of changes, constitutes progress depends upon our criterion of values.

1. If, by the process of natural selection, the potato bug should develop immunity against the poisons men use to exterminate him, that change would be regarded as progress from the viewpoint of the bug but by no means so from the standpoint of man.

2. Most people take now a very different attitude toward pleasure and recreation from that held by the Puritans. We count pleasure one of the goods of life, and our people, adults as well as children, have their lives “enriched” by it, in the form of automobile riding, the comforts of a well-furnished house, ball playing, attendance at theaters, etc., beyond the opportunities of any previous generation. But there have been many people in the past, and there are many in the present, who count that not progress but a grave relapse from the sweet exaltation of a life of privation and of Stoic self-denial.

3. Present day life is in every way vastly more complex than that of earlier times. But there are some people who say it is not complexity that makes life worth while but rather the simplicity and the serenity of bygone days.

4. All over the world there is going on an extension of the privileges of education to the lower classes, both in the sense of those of lower social status and those of less mental endowment. Most of us count this progress, but even among

¹ *Manual of Ethics*, p. 415.

teachers and school administrators there are not a few spokesmen who assert that this tremendous spread of education downward is a bad thing instead of a good one.

Reader give other illustrations of changes that, measured by certain standards are progressive but, measured by others, retrogressive.

Change—Evolution—Progress.—It will be readily recognized that not all change brings progress. On the other hand there can be no progress without change. Practically all persons are ready to declare themselves devotees of progress in principle, but most of these avowed friends of progress-in-the-abstract resist all concrete proposals of change by which alone progress could be made. (*Give examples.*)

Not only is some *change* not progress but even much *evolution* is not. Evolution carries us onward to a more efficient adjustment to our environment. The situations with which our persons and our institutions must cope change with time; hence the reactions of individuals to them, and institutions for dealing with them, must change correspondingly or perish from inefficiency. Even if the situations themselves should **not** change, still there would be such competition among means of meeting them that the fitter ones would compel acceptance at the cost of the less fit. Thus there would go on a process of evolution. But whether the evolution is really *upward* or merely *onward* only ethical tests could determine. For example, citizens of nearly all countries are coming to feel their worth as individuals, to have confidence in their ability to judge on political and economic matters that concern them, and to demand a voice in the management of state and industrial affairs. That is the situation to which governmental and industrial organization must adjust itself, and the inevitable adjustment seems to be democracy. Evolution toward democracy seems, therefore, inevitable. But whether democracy is really a *better* form of organization than autocracy is a question to be debated on premises entirely other than its inevitability. Thus all change is not evolution and

all evolution is not progress. "Progress," says Todd, "is rare, evolution and change universal."¹

Tentative Nature of Progress.—Professor Cooley contends that progress is essentially tentative in character. A program for it cannot be mapped out in advance and authoritatively imposed.

"The opinion sometimes expressed that social science should set forth a definite, tangible criterion of progress is, I think, based on a false conception of the matter, derived, perhaps, from the mechanical theories of evolution. Until man himself is a mechanism the lines of his higher destiny can never be precisely foreseen. It is our part to form new ideals and try to realize them, and these ideals give us a working test of progress, but there can be nothing certain or final about them. . . . So the collective intelligence must wait upon the motions of humanity, striving to anticipate and further their higher working but not presuming to impose a formal programme upon them."²

After all, only the experience of society can prove what is good for society. That is good which men find good. It is the right, and even the obligation, of the man of pioneering temper who has discovered new beauties and other values to press them upon the attention of society by the methods of persuasion; but it is not his right to attempt to impose them against the will of men, or even to feel personally wronged if society, after fully sampling them and finding them not good, refuses to accept them. In a matter where tastes are involved there can be no guarantee that the evaluations of single individuals, or of small minorities, are not exceptional or even perverted ones. He who would be a prophet for society must, therefore, keep in close touch with men and women. He must return to them, from his mountain top experiences, and study them continually. He can not map out progress in an *a priori* fashion. He must seek rather to draw

¹*Theories of Social Progress*, page 103. ²*Social Process*, pages 406-7 (Scribners).

out and bring toward realization the deeper and better aspirations already latent within the bosoms of his fellows.

Think through the implications of this principle in respect to each of the following, then criticise the principle: (a) Taking the position that the only proper liking for music is a taste for rigidly "classical" pieces, and adopting the educational policy thereby dictated. (b) Same with art, and literature. (c) High standards of money-making and money-saving. (d) Conformity to the requirements of "fashionable society"—the program of Mrs. Jiggs.

To what extent should this principle stop one from urging upon society what he believes men would find good if they would only sufficiently try it? How is this related to the matter of artistic tastes, etc., mentioned above? Most of us are very sure that we know what is good for society; to what extent is that a fortunate, and to what extent an unfortunate, delusion?

Some Criteria of Progress.—There are very few criteria of progress that would be universally accepted over the whole world, but we in this country have come to approve certain basic principles over against which we measure achievement.

Some of these principles are accepted by such compelling majorities that they seem to most of us almost axiomatic. Among these are the following:¹

1. The lessening of fatalities from disease and from famine.
2. Increase of wealth and the more equal distribution of economic blessings.
3. More extended and widespread education.
4. Increase of intelligent democracy in governmental and social affairs.
5. The extension of cultural opportunities, such as ready access to good books, music and pictures.

In respect to some principles there is about a fifty-fifty division of opinion, half of our people taking their functioning as measures of progress and the other half as measures of retrogression. Among these are:

1. The extension of governmental regulation to matters

¹ Compare Blackmar and Gillan, *Outlines of Sociology*, ch. VII, and Ellwood, *Introduction to Social Psychology*, ch. XIII.

long considered areas of personal liberty, as illustrated by prohibition of the manufacture and sale of alcoholic liquors, or governmental "interference" with methods of business or in labor disputes.

2. The co-operation of nations in a close federation at the expense of traditional nationalism.

3. The movement of men's interest from "humanism" toward "the practical."

4. The greater boldness and aggressiveness of women, especially of the modern "flapper."

Still other principles measure progress for only a small minority, measuring retrogression for the majority. Among these are:

1. Collective ownership of the tools of production, or other forms of government ownership, as contrasted with private initiative in industry.

2. Freedom in the married state from the restrictions now imposed upon free association with other persons than one's mate.

3. Freedom from the restraints of government (anarchism).

4. The development of class consciousness and inter-class conflict, as illustrated by syndicalism in industry and "pluralistic" and "Bolshevistic" theories in politics.

Forces that Make Against Progress.—Altogether aside from the uncertainty as to what is the direction in which progress lies, there are certain very powerful forces that militate against all change, and hence against progress.

1. *Instinct.*—In the early stages of human history it was very dangerous to leave the beaten path. Individual and group existence hung very precariously to their moorings and a slight error was often sufficient to bring disaster. Individuals and groups that adhered to the methods of doing things which had been tried and proved successful in the past, were reasonably safe; but those that experimented with untried ways were so often put at a disadvantage thereby that they were eliminated by natural selection in the struggle for exist-

ence. Through this selective process there was developed a strong instinctive resistance to change—so strong that not only did the masses in early days hold on to the old ways but turned in fury upon any member of the tribe who violated custom, and annihilated him. This ancient instinct, once very useful, still persists and fastens its paralyzing grip upon men to restrain them when they propose venturing upon a changed course of action. The instinct makes itself felt through emotion whenever one essays a new departure. So long as one does the same old thing in the same old way his life moves on serenely—however foolish or evil the thing in itself may be; but the moment he begins an unaccustomed thing he becomes choked with emotion. Biologically, it is evident, this is intended as a danger signal, warning him lest he too hastily enter upon untried and dangerous paths. Such emotional turmoil is painful, even alarming, and serves to frighten most men and women back again into their trusted kennels.¹

2. *The "Apperceptive Set" on the Part of the Group.*—What any situation shall mean to an individual depends upon the viewpoint from which he apperceives it. After one has looked at a problem from a certain angle for a long time, it is very difficult for him to shift over and interpret that problem from a quite different point of view. If the fixed mode of apperceiving the situation be not merely an eccentricity of the individual but be held in common by the members of a group in which he participates, the difficulty of getting away from it is greater. But if the bias be that, not only of one of many groups, but of a whole age, then the difficulty of escaping from it is very great indeed. For wherever one turns, one finds his point of view shared by others and confirmed by their example. Whenever he tends to waver from it, he finds himself smiled at as "queer." Thus the whole social fabric weighs down upon any disposition to change. In the

¹ For a fuller development of this thought see the writer's *Human Conduct*, chapter V. (Published by Macmillan).

group we have that tendency to old fogyism to which Professor James says "life sweeps us on," raised to the n th degree, and in harmony with the same psychological law of apperception that explains conservatism in the individual.¹

3. *Vested Interests*.—There is nearly always some inconvenience involved, at least temporarily, in the changes incident to progress. The introduction of the grain reaper, of the linotype, of the power loom, of automatic machinery for making bottles, all put out of work for a time a number of laborers and were opposed on account of the temporary inconvenience involved. A reorganization of education, of politics, or of churches encounters the same difficulty of imposing hardships upon individuals and is often thereby thwarted in spite of the greater ultimate good in prospect from change. Particularly is it to the interest of the dominant social classes to cling to the *status quo*. The members of such classes already occupy a favored position and change is more likely to reduce their relative advantage than to augment it. Thus the social élite and the propertied class very generally throw their weight against movements for fundamental changes in the social, economic or religious order.²

4. *Danger Lest if Changes be Admitted the Whole Fabric may Fall to Pieces*.—In Ibsen's *Ghosts* Mrs. Alving says to Pastor Manders regarding his theology:

"It was then that I began to look into the seams of your doctrine. I wanted only to pick at a single knot, but when I had got that undone the whole thing raveled out. And then I understood that it was all machine sewn."

It is this possibility that criticism and change may go too far when started, that makes the dominant majority in society reluctant to admit any tampering with fundamental institutions. Social movements have often been, like the swing of

¹ See Peters, *Human Conduct*, Chapter V.

² See Ross, *Principles of Sociology*, Chapter on "Ossification."

the pendulum, from one extreme to the opposite. These violent reactions from the accustomed status are generally very costly and might easily destroy the fruits of a century of civilization; hence the wish to "Let sleeping dogs lie." It is better, the many feel, to let a few worm-eaten and unsightly pillars stand awhile longer than to risk bringing down into ruins the whole structure while trying to replace them.

5. *Institutionalization*.—Inevitable and useful as organization is on the whole, it is a heavy handicap to progress. The high school subjects in which there is the readiest adaptation to local conditions and the quickest response to new problems and innovations of method—such subjects as biology, sociology, domestic science, and English—are the ones that have been least definitely standardized. Those against which charges of stagnation and sterility are most often made—such as mathematics, Latin, chronologically organized history, and physics—are the ones that have been most highly standardized. The fact that a very definite body of subject-matter has been agreed upon in them, and that certain clear-cut methods of teaching them have come to be pretty generally understood and accepted, makes them easy to teach efficiently as measured by the customary standards, but does so at the cost of progress in them. A standardized curriculum seems necessary in our present intricate school situation, but it is one of the major causes of the fact that the school lags generations behind the times. Similarly, when the religious thinking of men is crystallized into creeds, adopted by church councils, the spontaneous development that time would otherwise normally bring tends to be thereby estopped. Likewise in every other sort of situation readaption is more difficult after there has been crystallization into some tangible organization.

For when we institutionalize we not only match ideas and come to consensus of agreement, but we generally appoint guardians to see to it that these agreements be perpetuated. We install bishops, or secretaries, or congresses, or courts,

to act as mouthpieces of our organization and to conserve its interests. By reason of the obligation of their office these persons must conduct propaganda, both within and without the group, to promote the fundamental ideas on which the organization rests. Thus the machinery of an organization carries it onward with a momentum that often projects it far beyond its legitimate goal. It is a rare organized group that is willing to disband, or to change its character fundamentally, when its work has been done.

Illustrate from the sort of obstacles met in getting a fundamental reorganization of church or state. The student should not fail to read in this connection Ross's brilliant chapter on "Ossification," in his *Principles of Sociology*.

Conditions that Make for Progress.—Countering, in a measure, the obstructive forces discussed above, are some forces that contribute to progress.

1. *Biological Evolution.*—Disease kills off most readily the weakest members of the human race. Starvation, too, takes its toll mainly from the economically least fit. Even in our country those least able to compete economically often become so weakened from lack of proper food and shelter that they easily succumb to ailments which, had these persons been well fed, they could have thrown off. Natural eugenic forces tend also to eliminate the worst stock. All of these forces tend to bring the human race to a higher physical and mental level than it would otherwise attain, and thus make for progress.

But does natural selection operate as largely now, when we shelter the weak and cure the diseased, as it did in earlier times? What is the influence on race improvement of humanitarian measures? Compare the relative efficiencies of natural and eugenic selection as causes of progress at various periods of history as contrasted with the present.

2. *Social Evolution.*—Just as biological organisms compete against each other with the result that the weaker are eliminated, so also do social institutions compete with each other

and the fittest win out. In earlier days polygamy competed with monogamy as types of family organization, monogamy winning out because it was, on the whole, best adapted to human needs. The principle of democracy is now competing with that of autocracy as a form of governmental organization, and the former is winning. In this same fashion alternative forms of industrial organization war with each other for acceptance, new methods of business compete with old, changes in theology are proposed in contrast with effete creeds, visions of a modified family life challenge attention, and new ideas of international relationships contend with those that have come down from the past. By this constant clash of alternative institutions the less fit are ultimately squeezed out and the "better" prevail. Nothing can save the cobbler who once made boots by hand, or the lecturer on phrenology, or the untrained physician, or the "humpty-dumpty" manufacturer, or the saloon-made political slate, when conditions have so changed as to leave them less useful than others which have pressed themselves upon our favor. Step by step better institutions come to prevail, by reason of selection among them made by human beings, just as, under natural conditions, fitter species prevail in the struggle for existence.

But does an evolutionary process based upon selection of the fittest necessarily make for progress? Is the "fittest" the best? How do you know?

3. *Perception of internal contradiction* or other form of maladjustment, on the part of the masses, with a passive readiness to change but without a clear vision of what to do. There have been a number of periods of history characterized by this type of profound unrest. About the time of the birth of Jesus men everywhere were groping for some new basis for life. The old foundations were slipping away; new anchors were needed, but no satisfactory ones were in sight. Preceding the Protestant Reformation and the French Revolution

there was also widespread discontent which awaited only a leader, or other touchstone, to release the strained energy into an explosion. Just now there is among us a feeling of uncertainty and profound dissatisfaction with our education. We feel somehow that it could be vastly improved without seeing clearly in just what way. Such deep-seated but mute discontent has characterized many periods regarding one aspect of life or another—or several aspects simultaneously—and more or less of it is latent in every period.

At such times men take readily to panaceas. We seldom recognize how slow and difficult must be the road to true progress. Quack solutions for our difficulties look very simple and attractive, and the demagogue who comes proposing them at these hours of unrest is not unlikely to be hailed as the spokesman of our aspirations and as our deliverer. Unwittingly at these times men will follow a leader to essentially lower levels of civilization—to wide-spread hatreds, to class or individual selfishness, to old superstitions—back to the “good old times” of the supposed “golden age.”¹

But these periods of unrest are also opportunities for the true prophet. He comes with clearer vision and more positive faith, vocalizing the mute aspirations of men and leading them out of their wilderness. His status is much more precarious than that of the demagogue, since he must call men to *fight* their way upward through long and laborious effort against some of their own instincts, instead of offering to open for them forthwith the gates to the Elysian fields. But usually the true prophet will ultimately prevail, though his course upward will be interrupted by as many temporary relapses as there are occasions when a skilled demagogue seeks the ear of the populace—for when he seeks it he will generally get it, at least temporarily.

What is the relation of the individual to social progress? Do masses as such usually take the initiative in changes? To what extent do individual prophets *make* sentiment in a group and to what extent do

¹ Recall the psychology of mob activity, pages 229-33, *infra*.

they merely *put into articulate form* the sentiment of the group? What is meant by a prophet's being ahead of his time? Is there such thing? If so, what happens then? How does Jesus' illustration of the leaven apply to the lifting of all groups?

4. *Active social teleosis.* There is a sense in which any group, and especially an organized group, is continually struggling purposively forward. It sets up certain aspirations toward which, though never completely attained, its members strive and in the direction of which all of the forces of social control are made to operate. But sometimes in the larger and more complex groups, such as church or state, these aspirations take, under the guidance of the dominant elements, the form of definite programs. Machinery for persuading or coercing the remainder of the group is then put into operation. Thus, for example, propaganda is conducted for graded Sunday School lessons, or for pensions for superannuated ministers, or for the policy of tithing, or for systematic education regarding sex, or for thrift, or for milk drinking, or for standardization of rural school buildings. Through a carefully manipulated educational process the program is realized, the group as a whole thereby mounting to a higher level. Sometimes the aspiration has merely a general, instead of a specific direction. Feeling that better methods could be found the group deliberately sets about seeking for them. Thus church councils are called and upon them is imposed the obligation of discovering improved ways and means; oriental countries send commissioners to occidental lands for the purpose of studying industrial and educational systems and bring back recommendations for the improvement of home affairs; school boards send scouts to other cities reputed to have good schools with the hope that some suggestion useful to the local system can be found; or states or cities call in survey committees to look over their affairs and point out weakness and remedies.

The Curve of Progress.—In a number of respects the behavior of the group follows essentially the same law as that of

an individual; the normal course of social progress is one of these. In acquiring skills, and perhaps also in other forms of learning, the curve that represents the rate of the individual's advance is not a straight line; instead it is made up of rather steep ascents and plateaus. The learner seems for awhile to be making no progress; then suddenly there is a break and he finds himself making rapid headway. After a little while his progress is again arrested and he seems to remain at a standstill, but at a higher level than that of his previous pause. Thus learning seems to be by fits and starts, no matter how continuously one may practice. As a matter of fact, however, one is really learning at these plateaus as well as at the periods of ascent—assimilating material that had been too rapidly acquired in the last advance and preparing for the next flight.¹ Analogously in one's moral or religious development one goes through periods of "conversion." These are breaking points at which one seems to be suddenly lifted to a new level. But here again the suddenness of the transition is more apparent than real. Beneath the surface there has been developing a growing strain, an increasing dissatisfaction with the old ways, and the conversion is only the shaking of life into such new external forms as will bring harmony between covert aspiration and overt avowals and actions. Or if the transition be made in advance of complete preparation for it, the intervening blocks of character must be built in afterwards to support the superstructure. Thus the development of both moral character and motor or mental skills is fundamentally continuous, but externally viewed its curve is made up of flights of achievement interspersed with long periods of stagnation.

The same sort of thing tends to hold for social progress. The course of progress is seldom steadily and regularly upward. Rather, institutions once formed are allowed to crystallize, resisting change until they have come to lag far behind the conditions with which they ought to square. During this

¹ See Swift, *Mind in the Making*, pages 216-18.

period of fixity on the part of institutions the strain becomes gradually greater and greater until there comes ultimately a break. Then, after a period of confusion, institutions form anew on a level more in consonance with the situations they must serve. Thus the curve of progress, too, when externally viewed, consists of fits and starts, upheavals and periods of stagnation, steep ascents and long plateaus, though beneath the surface development is much more continuous than it appears to be.

Smoothing the Curve of Progress.—This cataclysmic course of progress, whether of individual growth or social development, is unfortunate. In both cases it is due to bad educational methods. If one were so handled that his moral and religious aspirations could find normal expression as rapidly as they developed, being neither forced nor restrained by an artificial environment, periods of stress and strain would not need to occur. Most educators contend that plateaus in the curve of learning are not necessary but are due to lapses of attention, which are ideally preventable, or to overcrowding at certain stages. Analogously could not social progress be made even and continuous, instead of spasmodic, by the right sort of guidance? And is not education the means by which such guidance is to be given? If pilots were set upon the conning towers to peer ahead and discern the nature of the seas into which we are next to enter, and if they were delegated to shape up individuals through training in such a way that these individuals would find themselves possessed of the characteristics necessary for meeting the foreseen emergencies as soon as they were approached, would not the society of each decade find its machinery so nicely adapted to its problems that the strains which now sometimes produce cataclysms would be entirely absent? ¹ That ideal would obviously demand that society commit itself to a thoroughly

¹ Compare Plato's *Republic*, Book IV. But Plato's philosopher-rulers are not asked for here, only schoolmen with a forward look and the support, or at least the toleration, of organized society in squaring their practice with their prevision.

dynamic and telic attitude, and that it utilize systematically the forces of education to shape men and institutions into conformity with the prevision of its unfolding purposes. Is such ideal feasible? Is there anything to indicate that society is moving in the direction of its realization?¹ How would the education upon which it would rely as means resemble, and how would it differ from, that now given? What are the obstacles to getting education to serve this function?

Education and Progress.—All sociologists agree that education is one of the most important factors in progress—indeed an indispensable aid to all telic progress. Even the wide dissemination of information and universal literacy favor progress. But when education is taken to mean, as it ought to be, not merely the dissemination of information but also the cultivation of ideals, biases, attitudes, insights, and habits, then it obviously assumes a unique rôle in directing the actions of men. Subtly controlled education can mold men almost at the will of those who guide it.

But just as it is in the power of education to mold men toward conformity with a dynamic ideal that looks toward the future, so it is equally within its power to set them against all change out of which progress must come. And, either fortunately or unfortunately, it has been, and still is, the main achievement of education, at least of school education, to conserve the past rather than to remake the future. In old China great men in the past wrote their ideas into books; as time went on these books took on a sacred character and scholars of later generations conned them as the only sources of wisdom. These books conserved the wisdom of the past, which was good, but did so at the cost of adding no new increments out of the present, which was bad. In like manner the Hindoos, the Jews, the Mohammedans, and our own ancestors through early European history, had their sacred books of wisdom to which it was an offense to

¹ See the references to Ward and to Dealey at the end of this chapter.

add anything new. Under these conditions education exercised solely the function of conservation.

The education of to-day, too, confines itself much more largely to the function of conservation than most of us realize. The very fact that we use books so extensively makes that inevitable. For books put into compact form the wisdom of the past and hold it crystallized there. Not only do we, through our study of Greek and Latin, turn our faces backward to an ancient civilization and try to make it live again, but our study of the history of our own country is intended to make us glory in our past and to preserve, usually unchanged, the achievements of our fathers.¹ Our physics, our chemistry, our literature, our mathematics, are all a heritage from the past, already closed when they come to the pupils, especially to younger pupils. It is thus natural and inevitable that education should function chiefly in conservation of past institutions. Of course this is good if not carried too far. We can get a better future only by building upon the past and by making merely small changes here and there—so small that the new shall be but a tiny fragment of the whole. Yet surely education must leave open at the top the institutions it conserves from the past, which it seems not to have been doing in sufficient degree.

Is it only by accident that the schools devote themselves to conservation, or by design? To what extent have church schools and colleges been founded to conserve the theology of the denomination establishing them? What happens when their professors aggressively preach doctrines in contravention of the creeds of the owning denomination? To what extent are state schools expected to conserve, rather than to promote changes in, the state? See President Coolidge's remarks on this in *The Delineator*, summer of 1921, and react on them.

Todd on the Conservatism of Education.—Professor Todd charges the schools with being bulwarks of conservatism rather than of progress. He says:²

¹ Note the recent political play on the Monroe Doctrine and on Washington's advice about foreign entanglements.

² *Theories of Social Progress*, pages 514-15.

"The same history of relative inelasticity in the school might be projected down to the present day. Suffice it to say that the school, speaking by and large, has never of its own motion added a single subject to its curriculum. Social pressure has always forced it to adjust. Hence the inevitable paradox: education is constantly behind the march of industrial progress, and yet necessarily in the fore of any further advance. . . . Babington attributed Chinese stagnation to 2000 years of scholar governors. He also rather pointedly insists that if James I of England had made Parliament a Witenagemot of the learned men of the country, and had placed the whole administration in the hands of men trained in the classics, a stationary condition would have ensued. We know, too, that during the nineteenth century the universities and other higher educational institutions, the so-called educated and intellectual classes, have pretty uniformly objected to and opposed the march of liberalism and democracy. The Factory Acts were attacked almost unanimously by economists and other public teachers. The intellectuals have frequently laid themselves open to the charge of fostering class domination."

Community Differences in Degree of Openness to Progress.

—But Professor Todd does not do entire justice to schoolmen in his implication that it is always they who resist progress in education. Many of them, on the contrary, are suffering martyrdom because of their progressivism, though many others, of course, are ultra-conservatives. In a democratic state the community after all controls the schools. No one can succeed with a policy that violates the psychology of the community. Now there are a few communities that are open to progress in educational affairs. Earlier in this chapter we distinguished among several stages of readiness for change and advancement: (1) Smug satisfaction and instinctive resistance to all change that would disturb the delightful serenity; (2) Perception of internal contradictions, or other forms of maladjustment, with passive readiness for change; (3) A telic attitude, in which better methods are consciously

and actively sought. A few communities are in this third stage of active search for improvement in education, and many more are in the middle stages. These are mostly communities in which there are many members who go about much, and thus receive both stimuli to openmindedness in general and also specific hints as to educational possibilities. Also they are very likely to be the more populous centers—cities or suburbs thereto—because in these there is more intermingling of a heterogeneous population, which is always a stimulus to progress. In such situation, and particularly in those places where there is an active ideal of progress, the onus must rest on those in charge of the schools if they are bulwarks of conservatism. But there is a vast number of communities that are temperamentally closed to progress, in which the primitive and instinctive adherence to custom is the predominant characteristic. They are more or less tolerant toward progress in the abstract but concretely live by the motto: "Please go 'way and let me sleep." These are most likely to be the rural communities, the villages, or the small cities with a fairly homogeneous population and provincialism in contacts. Here the way of the reformer is hard, whether the reform be that of education or anything else. Whether the forward looking schoolman attempts to introduce more democratic methods of discipline in the school, or to replace effete subjects with more modern ones, or to reform methods of teaching, or to introduce any other new pedagogical or administrative feature, he is met with the suspicion, or even the active opposition, of the masses who, in typical crowd fashion, measure his policies over against the good old practices which obtained when they went to school.

Social Restraints upon the Teacher.—Educators have it in their power to shape the men and women of the future almost as they will, provided that they clearly conceive their objectives and marshal subject-matter and methods in such way as to drive on always toward those objectives. But

would they, if they had a clear vision of future needs and wished to do so, be allowed to mold the boys and girls in their charge into men and women adjusted to the future situation, provided the future needed to be different from the present which adults are now approving? The present situation calls for abilities, particularly abilities to co-operate and to judge on economic questions, not needed in the same way a generation ago; so that the youth of the seventies to nineties were allowed to grow up without their acquisition, with the consequence that enterprises are now failing which might otherwise have succeeded. As we look ahead to the next generation we can see looming up some vastly significant new demands. The present generation is neglecting to plan adequately for them in spite of the fact that economic, religious, and possibly political, reorganizations that are bound to come anyway will find men so unready to meet the new responsibilities that civilization might, at least temporarily, collapse in consequence. Would a schoolman, foreseeing such needs, be allowed to shape his instruction so as to develop the abilities needed for a new order? Would he if he conducted no propaganda in favor of the new order? Could he give the information, the ideals, etc., demanded by a new order without laying himself open to charges of propaganda in its favor?

The schools are not only allowed to propagate what the dominant majority approve, and thus win the minority over to it, but are actually enjoined to do so; but, with such matters as religious sectarianism, partisan politics, or labor disputes as types, consider how touchy the public is regarding delegating to teachers the right to discuss, in school, questions on which there is approximately an equal division of opinion. Why is this? With "socialism" and religious liberalism as types, consider how unwilling the public is to permit teaching regarding matters to which a strong majority are opposed. What argument is there in favor of allowing free discussion? What argument against? What

arguments for and against the expression and defense of his own convictions on the part of the teacher? In elementary schools? In high schools? In colleges? In universities?

What relation has this to the problem of making the school an engine toward progress? Recall what was said on pages 273-4 regarding the tentative nature of progress, and consider how great responsibility the teacher assumes who, in the face of a majority sentiment to the contrary, is so sure he knows what is for the good of future society that he wishes aggressively to shape the prejudices of his plastic wards in harmony with his private convictions. To what extent should consideration of his responsibility, or of expediency, estop expression and defense of his convictions in the schoolroom? In his relationships as a citizen outside of the schoolroom? Has a schoolman a private individuality that can be divorced from his status as a teacher? To what extent does his prestige as teacher give an added authority to these extra-school expressions? To what extent, justly or unjustly, is his professional life likely to be endangered, or otherwise affected, by what he does outside of school hours? Give examples.

Snedden's Solution for the Educator's Dilemma.—Professor Snedden would keep out of the schoolroom all questions on which there is not substantial agreement in the community. In speaking of "Freedom of Teaching in the Social Sciences,"¹ he says:

"The social science teacher in his capacity as public servant has no rights of teaching that which seems good or true to him, quite irrespective of the collective opinions or valuations of the society, or largely controlling majority thereof, which he serves. He has here heavy obligations as agent or employee of the public either to meet its demands or to withdraw from its service. If his conscience and judgment convince him that he is right, then his correct course is to detach

¹ *Civic Education*, pp. 276 and 278. (The World Book Co.)

himself from the service of the state and to undertake propaganda in his private capacity."

"The social teacher may often be of minority groups. In these connections he is entitled to hold such opinions as he sees fit. But *teaching* is his field of social behavior. Here in his public capacity he must conform to the will of the majority and, so far as overt act or influence is concerned, uphold the social order under such democratic auspices as now represent the democratically expressed will of the majority."¹

Is this the solution of the problem? Or is it running away from the problem? In a democratic state can the schools do anything else than run away from this problem? What, then, is to be the adjustment between the tremendous potentialities of education for progress and the scope for activity that is left for its chief agency, the school?

PROBLEMS FOR RESEARCH AND DISCUSSION

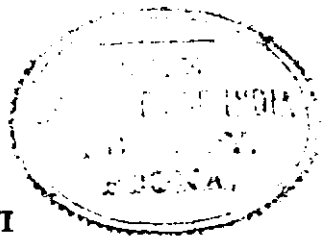
1. Trace through the history of educational reform and reformers and find out what proportion of them were welcomed in their own time and country.
2. Do the same with respect to the introduction of new subjects into the school curriculum (especially the college curriculum).
3. Trace out the history of some social change and determine whether it spread from an individual to a social minority and thence to the majority or whether it began gradually as a mass movement and sought its spokesman. Let each member of the class study a different example and generalize from these regarding the normal movement of progress.
4. Get in mind some particular bit of social progress you would like to see achieved. Then note down the obstacles that would probably be encountered in realizing it.
5. To what extent does the history of such educational movements as the following show a fluctuating curve of development: teaching children in classes; appealing to interest; the use of observation in teaching; the testing of general intelligence?
6. What can you find to confirm, and what to refute, Professor Todd's statement that "the school, speaking by and large, has never of its

¹ See the whole of his excellent chapter on "Freedom of Teaching in the Social Sciences" in his *Civic Education*, or his article in *School and Society*, Vol. 13, pages 181-91.

own motion added a single subject to its curriculum. Social pressure has always forced it to adjust" ?

REFERENCES FOR FURTHER READING

- BLACKMAR AND GILLIN**, *Outlines of Sociology*, revised edition, chapter XXIX.
(Discussion of criteria of progress.)
- COOLEY, C. H.**, *The Social Process*, chapter 34.
(A short but very incisive discussion of the tentative nature of progress.)
- DEALEY, J. Q.**, *Sociology: its Development and Applications*, chapters 21 and 22.
(Gives considerable space to discussing relation of education to progress.)
- ELLWOOD, C. A.**, *Introduction to Social Psychology*, chapter 13.
(Critical survey of theories of progress.)
- , *The Social Problem*, pages 33-39 and 225-249.
(Evolution versus revolution as methods of progress.)
- GIDDINGS, FRANKLIN**, *Studies in the Theory of Human Society*, chapter 14.
(A splendid chapter on the costs of progress.)
- PARK AND BURGESS**, *Introduction to the Science of Sociology*, chapter 14.
(Made up of sections taken from classic works.)
- PETERS, C. C.**, *Human Conduct*, chapter 5.
(The psychology of resistance to progress.)
- ROSS, E. A.**, *Principles of Sociology*, chapter on "Ossification."
(An interesting discussion of the forces that make for stagnation in society.)
- ROBINSON, J. H.**, *The Mind in the Making*.
(A brilliant discussion of the historical development of the viewpoint of modern civilization, as a means of explaining its present idiosyncrasies.)
- SNEDDEN, DAVID**, *Educational Sociology*, chapter 22.
(Social efficiency and progress.)
- , *Civic Education*, chapter 13.
(Liberty of teaching in the social sciences. Consideration of the problem whether a teacher should forge ahead of public opinion.)
- , "Liberty of Teaching in the Social Sciences," *School and Society*, Volume 13, pages 181-190.
(The same material as in the *Civic Education* above.)
- TODD, A. J.**, *Theories of Social Progress*.
(An able volume devoted wholly to a discussion of progress.)



CHAPTER XVI

ORGANIZATION OF THE CURRICULUM

Education Must Prepare for all Life.—The fundamental thesis of this volume is that the offerings of a school should be determined by the needs of life. Both the topics that are to be taken up for study and the methods by which they are to be treated should be decided only in the light of objectives that are to be thereby attained. But when we say that consideration of the needs of life should govern our procedures, it must be understood that the needs of *all* life, not only of adult life, are meant. The child's need for such social experience as will enable him to get along with his playmates, for the health and strength which come from bodily nourishment and from physical activity, for the stock of ideas and fancies which are brought to him through stories, and even for the joys which are found in spontaneous play, is just as real and as compelling as in the adult's need for vocational, civic, and cultural abilities. In an educational system that measures utility in terms of want-satisfying power, as ours does, we can not afford to prostitute the wants of childhood and of youth to those of manhood and of old age.¹

Telesis Even in Education for Little Children—Yet the realization that childhood has its rights as well as adulthood does not involve that we abrogate one whit of our principle of guidance by objectives. Whether the teacher is dealing with children in the kindergarten or with students in an engineering school, every move that he makes should ideally be governed by an educational purpose. The public has no money to spend, nor has any individual any time to give, on child ac-

¹ For a classic expression of this truth see the famous passage in Rousseau's *Emile*, pages 44-46 (D. Appleton and Company).

tivities that are not turned to more purposive account by reason of the adult participation. It is true that the end sought may be very far from the interests and problems of adulthood. The aim may be to have the child learn better how a ball acts when rolled, or what kind of objects he can lift or push about, or to wait his own turn to play bear, or to get the muscular development that comes from jumping, or to have his imagination enriched with songs and stories, or just to have him experience in his childhood the joy of living. But whatever the child gets through the guided activity must be worth getting, and must be got better by reason of the adult's participation, if such participation is to justify itself. If the teacher is to be worth anything, he must look ahead, direct the activities (covertly, of course) in harmony with a purpose, see to it that they lead to something. In this respect the present writer takes direct issue with what Professor Dewey says about education as preparation in his *Democracy and Education*.

Only a part of our school efforts will, therefore, be directed toward ends of value primarily in adulthood. Many of our activities will justify themselves because they give values worthwhile at the moment, or for a longer or shorter span of child life, regardless of whether or not they produce any ability to be carried over as such into adult life. But, while some of our legitimate achievements may be of this transient kind, all may not be so; for there is a large segment of life lying ahead, when the individual will be beyond the call of the school, for the problems of which the school must prepare him while it claims his time. In making up the program of school education we must, therefore, make a place for (1) the activities needed for meeting, or preparing the child to meet, the needs and problems of child life; and (2) the training needed for preparing abilities requisite for efficiency in coping with the problems of later life.

Selection and Distribution of Curricular Materials.—In respect to the *organization* of the curriculum two problems con-

front us: (1) to know what ends are worth attaining, in order that we may make them criteria for selecting materials and methods; and (2) to know how to distribute training for these ends to optimum age levels. Enough has already been said throughout this volume, or will be said in Part Two, about the first of these problems; our task for this chapter is to discuss briefly the second.

Bases for Distribution.—There are several bases on which we can distribute to different age levels the training for the several abilities we want our product to have by the time we release him from school.

1. *According to need.*—Some abilities are needed early; others much later. Thus the acquisition of health habits and a minimum of health information must be got as soon as possible; abilities to participate in political and matrimonial affairs can be taken care of much later. So, too, there are elements of arithmetic, of history, of language, and of science that are needed as prerequisites on which to build later ones; these must come as early as the need requires, and can be best motivated if they neither lag far behind nor far anticipate the occasion when they are to be used. The great merit of the "play school" is that in it, since its activities are all spontaneous, never forced, help comes only when the pupil realizes a need for that help.

2. *According to the psychological nature of the child.*—Interests differ somewhat at different age levels; hence a given kind of training can be more readily motivated at one time than at another. Perhaps at certain times the child can make relatively more effective use of one type of intellection than of another. However, present day psychology is making less of these age differences than was formerly done. But the psychological law of apperception still holds: curricular elements must come in such order that the new elements may be understood in the light of older ones and in the light of the general experience acquired up to the time. Although these conditions are partly subject to the control of the

teacher, since he can both guide interests and see to it that the necessary background of apperceiving ideas be built up, there are limits beyond which he cannot effectively reverse the normal order.

3. *According to difficulty.* School must grade experiences in such way that overwhelmingly difficult ones shall not be encountered at any stage. So far as the other two conditions allow, the easy ones should be got in early and the hard ones postponed until late. This was one of the principles back of the spiral method of curriculum building, and is now being embodied anew in our general courses in mathematics and science, and in our current redistribution of materials in algebra and in Latin. When difficult materials are introduced before they can be readily understood, the result is almost certain to be empty verbalism.¹

ADMINISTRATIVE DIVISIONS OF OUR SCHOOL SYSTEM

Administrative Units.—The ideal distribution of curricular materials would, of course, be different for every two pupils. But such individual adaptation would not be feasible under any school conditions we now have in sight. For reasons of economy we must teach pupils in groups. And, to facilitate interchange of pupils among the several districts as they move about as well as for other administrative purposes, we must assign the same type of work to the same age levels throughout extensive territories. Hence the standard divisions in our school systems. Not only have we fairly well standardized divisions by years, but we also break these grades up into larger administrative units for greater convenience and efficiency in management. Although originally these large units took on boundaries largely by accident, we are now adopting divisions into three units which are defined by psychologically grounded boundaries, and about the nature and functions of which we can make some reasonably accurate generalizations.

¹ On the grading of subject material, see *Charters, Curriculum Construction*, chapter X.

These three divisions of our traditional twelve grades are:

1. The elementary school, grades one to six inclusive.
2. The junior high school, grades seven to nine inclusive.
3. The senior high school, grades ten to twelve inclusive.

Not all school systems, by any means, have as yet adopted this administrative scheme, and even where the principle has been followed there is not complete uniformity as to the number of grades assigned to each division; but the scheme seems to be pretty well indicated as the typical organization of the near future.

Functions of the Several Divisions.—(1) *The Elementary School.* The function of the elementary school is mainly to give the tools of learning. That means addition, subtraction, multiplication, division, simple fractions, decimals, and mensuration, which are needed for the common relationships of life and for the sciences and mathematics of the grades above; the minimum of historical information needed to give a setting for reading and social studies to follow; a similar background of geographical knowledge; habits of hygienic living and such information about health matters as is demanded for reasonable care of health; ability to read in such way as to make use of books; ability to express ideas in intelligible and reasonably correct English; ability to write legibly and to assist the expression of ideas with simple drawing; the acquisition of such moral ideas and habits as are essential for living with playmates and with elders; etc. It falls mostly to the upper grades to train the child in the social applications of these tools. Of course this dichotomy is not complete. Throughout the first six grades the child will get some training in social applications of his tools, if for no other reason than to motivate the acquisition of the tools themselves, but on the whole, the minimum achievement of the elementary school must be set in terms of mastery of a number of techniques indispensable for any further progress in education.

2. *The Junior High School.* The function of the junior high school cannot be formulated so simply. It has several very important aims, among which are:

(a) *Self-discovery.* Through this period of pubescence and very early adolescence the child should have an opportunity to discover his tastes and his aptitudes as a basis for his later choice of studies and of a life career.

(b) *Perfecting the mastery of the tools left unfinished in the elementary schools.* In many cases the child will not have mastered as completely as necessary the ability to add rapidly and accurately, to read effectively, or to write legibly. Particularly it may not have been found feasible to give him all the background of geography and of history that is necessary even as a minimum for participating intelligently in the study of the physical and social science of the grades above. Hence some time, and some explicit attention, may need to be given to the completion of the requisite mastery of the fundamental techniques and backgrounds.

(c) *Acquisition of the common information and appreciations indispensable for culture and for democratic living.* Beyond the junior high school, individuals will begin to diverge from each other. Many will leave school before getting far beyond the ninth grade. Those who do go further will begin at this point to elect their courses, so that some will be educated in certain spots and others in other spots. We have seen in our earlier chapters, particularly chapter VI, that democratic living demands that all persons share, up to a certain point, the same culture in order that they may freely intermingle and communicate with each other. It is chiefly here in the junior high school that these common elements of information and of appreciations must be secured.

(d) *Prevocational training for the few who must leave school early.* The end of the compulsory school age comes in most states somewhere around the ninth grade—sometimes a year earlier and sometimes a year later. Pupils are permitted to leave then, and many of them do so. These should not be

turned out with absolutely no orientation with respect to their future work. Especially if there are no continuation schools in sight for them in which they can get help in their vocations, some provision for prevocational training should be made in their closing years at the day school. No very serious vocational education can, of course, be given at this age level, but some extremely fertile seeds can be planted.

(e) *Application of the technique got in the elementary school* toward acquiring the fitnesses demanded for effective living in respect to health, morality, citizenship, culture, and worthy home membership. That is to say, it is in the junior high school that the training of a socially efficient individuality through the instrumentality of the tools now acquired, first comes forward as a dominating purpose.

"As the pupil passes into the junior high school the emphasis upon the acquisition of the technique of subjects should gradually shift to the use of the technique as tools in securing new ideas and appreciations, solving problems, and executing projects. However, this distinction between the instruction of the elementary grades and that of the junior high school is only a distinction of emphasis, and it should vary in different kinds of activities. As the pupil goes into the junior high school he should study arithmetic more to solve home, school and community problems than to solve problems as a preparation for more mathematics, although the latter phase should not be neglected. He should write compositions primarily to express himself fully, freely and originally to his fellows rather than to learn the technique of punctuation, sentence structure, and the like, although constant attention to improvement in these matters is very necessary."¹

3. *The Function of the Senior High School* is to give the information, ideals, appreciations, etc., requisite for living effectively as an individual and a member of society.

(a) In the general high school those having to do with health, morality, culture, citizenship, and domestic life.

¹ Lull and Wilson, *The Redirection of High School Instruction*, page 17. (Lippincott).

(b) In the vocational high school those having to do with the vocation for which the pupil is preparing. Preparation for college is to be regarded as coming, in large measure, under this second heading.

CHARACTERISTICS OF THE CURRICULUM

The Elementary School.—The elementary school program should be conceived in terms of the *mastery* of the tools of learning. These tools are essentially the same for all.¹ Hence there can be little or no room for choice between studies, as there can and should be later. All who are normal should be expected to reach the same *minimum* achievement, though some may go as far beyond that minimum as their abilities make possible while others may be required to take more than the usual time allotment to reach even the minimum.

But the prescription of a common minimum *attainment* for all should not be understood to imply in the least *identical school training* for all. Many, by reason of their exceptional capacity for learning, can master in a short time attainments that will require much longer for others. Many will bring from home forms of training, in ability to speak and write the vernacular correctly, in morals and manners, in health ideas and habits, etc., which the school must give to others. Hence the elementary school ideally will segregate pupils, or otherwise meet these individual differences, so as to give pupils the kind and amount of training they severally need to overcome their deficiencies as measured against the standards. By the use of Professor Snedden's "type group" basis of classification² this may prove administratively simpler than seems possible at first blush. This will mean a certain differentiation of training even in the elementary schools, but a differentiation based on principles quite unlike those that govern election of studies in the schools above. In addition to these differences among individuals compelled by differences in the rapidity of

¹ See Bonser, *The Elementary School Curriculum*, pages 61-64.

² Described in chapter XIX *infra*.

taking on training and in the contributions which their respective homes make, there should be considerable difference in the *means* for attaining ends that are used with the several members of the class—in the poems selected for memorization, in the books read outside of class, in the home projects done for school credit, in the supplementary studies or reports made by the brighter pupils, etc.

The Junior High School.—(1). *If the junior high school is to help the pupil to discover his tastes and aptitudes*, it must bring him into touch with a wide range of interests. He should get some try-out with as nearly the whole gamut of activities as possible. In the manual training shop he should have some experience as an amateur not only with cabinet making and carpentry but also, if possible, with sheet metal work, machine shop work, blacksmithing, etc. He should sample the super-arithmetical mathematics, the physical and biological sciences, the social sciences, foreign languages, and literatures. He should get enough out of each of these fields to test out his interests in them and his abilities for them. Along with this try-out process there should go some systematic vocational and educational guidance for the future, so that, in consequence of this testing of interests, capacities and purposes, the child may get oriented with respect to his high school and college work in such way as to avoid the pedagogical tragedies, either of omission or of commission, that are now daily occurring. (*What tragedies?*) Obviously these contacts with the several fields must be comparatively slight ones. The solution can be only a series of general courses each giving touch with one of the great fields of learning—general science, general mathematics, general social science, general history, possibly even, as Judd has suggested, general language. Most of these general courses we already have developed; one or two are as yet practically untouched.

(2) *Acquisition of the common information and appreciations indispensable for culture and for democratic living* must also be achieved largely through the general courses. The

minimum of mathematics that the layman must have in order to appreciate as an amateur the field in which the expert mathematician or engineer is working, to understand and sympathize with him, and to enter into conversation with him, he must be given in the course in general mathematics in the eighth or ninth grade. Likewise the science, the history, the touch with foreign languages and literatures, and the acquaintance with shop practices that are indispensable as bases for intercommunication and for the comprehension of references made in conversation, on the platform, and in the press, must be provided by general courses in these fields, so drawn up as to fulfill this function as fully as the meager time allows. These general courses should be prescribed for all. No one, unless under exceptional circumstances, should be allowed to pass into the area of election and specialization without having got these minimum touches with the whole sweep of organized knowledge.

(3) *Completion of the tools left unfinished* in the grades below may require certain courses in the junior high school that resemble in spirit the work of the elementary school. It is not certain that enough locational and political geography can be got in the fifth and sixth grades to justify our dropping it at the end of the elementary school period. Drills in the fundamentals of arithmetic, in spelling, in reading and even in penmanship may need to be prolonged into the seventh and eighth grades for at least a part of the pupils.

(4) *Prevocational training* will demand courses determined by the nature of the industry toward which it points, and designed to fit the pupils to help themselves better toward success when once launched upon the vocation. For certain persons this will be drill on typewriting and a start in book-keeping; for others it will be certain types of applied arithmetic; for others, shop work with such glimmerings of related theory as will motivate further study of principles as the worker goes on with his craft in the future; and for others still different forms of training.

The Senior High School.—Little need be said here by way of generalization about the senior high school course except that it should be dominated by determining objectives. If the high school purports to be vocational, it should see to it that it develops the particular abilities a job analysis shows to be essential for success in the vocation, both in respect to needed skills and to related theories. If the course purports to be college preparatory, the school should ascertain the demands of the colleges to which its students will go and seek to meet these in such way that its graduates will not be embarrassed when entering the institution of higher education. When colleges cease to demand conventional studies as wholes and ask instead, as they should, for candidates prepared to succeed in college life, the preparatory high school should make a job analysis of the demands for success in college and train its students in the requisite traits, just as the vocational school does in respect to abilities needed in the trades. If the high school course is a general (cultural) one, the particular abilities should be worked for that an analysis of culture, citizenship, morality, health and domestic life shows to be needed, and courses should be selected or constructed that are purposively designed to give these abilities in maximum degree. What these elements of efficiency for which we must work are, is not yet known in detail but is now engaging the serious study of educational investigators. The analyses given in Appendix A of this volume will give a good start for constructing courses on the basis of specific objectives.

Prescription Versus Election.—Schoolmen are not free from the general temptation to get things “settled”—fixed as a system into which individual cases can be mechanically pigeon-holed. The historic tendency to prescribe a single curriculum for all, or to set up from two to a dozen alternative curriculums among which the student must choose as wholes, is one exemplification of this temptation. The other extreme of setting before the student a long list of courses among which he is asked to choose *ad libitum* is an

equally lazy way out of the difficulty. All three of these methods are far too easy solutions to the complex problem involved.

Legitimacy of Some Prescription.—There is needed some prescription of work if the school is to give the child maximum preparation for life. School is not a place where one plays at his own pleasure for the duration of his period of dependence. It is instead a place where one must acquire abilities that are necessary to enable him to get on in life. It makes a difference what training he takes. And it would be a miracle if his own immature judgment, to say nothing of his undeveloped will, should invariably prompt him to subject himself to the training most needed. We have not only the right but the obligation to prescribe, provided we know why we do it.

1. We should prescribe such training as will bring the pupil to the mastery of such tools as are essential for living, a social survey determining what these are and a study of relative values indicating what stress should be placed upon each of them. Ability to write and speak the English language effectively is one of these.

2. We should prescribe such training as will give to the rising generation the common information, tastes and interests necessary for democratic intercommunication.

3. We should prescribe the training necessary for effective citizenship, moral relationships, and the preservation of health.

4. We should prescribe whatever training is known to be necessary for further study in the future.

5. We should prescribe to everyone adequate training for success in some vocation. What vocation this should be must, of course, be decided separately for each individual, and by him rather than for him, but society has a right to demand that each should prepare himself for *some* effective service.

Needed Modifications in Our Policy of Prescription.—Traditionally our prescriptions have gone far beyond this. Or

rather they have gone beyond in some respects while falling short in others. We have been requiring all to take certain subjects that have acquired respectability through age, on the blind faith that they have somehow the greatest "training value." For the future we should refrain from compulsion except in respect to matters regarding the value of which we have well substantiated knowledge. We have, too, generally prescribed subjects as wholes, even when the values we claimed could be alleged only for certain parts of the subject or for certain pupils. Such light-hearted attitude toward prescription grew really not so much out of the current theories of education—which were only excuses—as out of an interest in teaching *subjects* rather than in training pupils. In the well-administered school system of the future we shall make some such modifications of our policy of prescription as the following:

1. Refrain from prescribing where we are not sure of our ground.
2. Construct many new prescriptions not hitherto regarded as "respectable."
3. Stop prescribing for "students" in general and adjust our prescriptions to individual cases. This will require careful educational guidance of the individual, and will require a large amount of differentiation among pupils.
4. Assist the pupil with carefully considered counsel in his choice among alternative optional courses.

It is uneconomical to prescribe the whole of "English composition" because a pupil is weak in constructing coherent paragraphs, or the whole of "algebra" or "chemistry" because one needs parts of these for the mastery of other courses. But what is the remedy? Would it be, as Professor Snedden has suggested, to make prescriptions in terms of short unit courses—articulation and enunciation of certain types of phonic elements through a training period of four weeks, the grammar of verbs through two weeks, the reading of business letters in Spanish through twelve weeks, etc? What would be the advantage of such short unit courses? Would this policy be feasible? Explain.

Where a course is given the artificial protection involved in pre-

scription, what responsibility ought the teacher assume for the character of its content? Historically *has* this responsibility thus sobered teachers of monopolistic subjects and induced them to keep their material vitality related to the needs of life? ¹

Work and Play in the Curriculum.—Throughout the greater part of our educational history school life has been drudgery for children. There were, indeed, times when the fact that it was drudgery was counted one of its merits. But Rousseau introduced into education the spirit of spontaneity and of play, and this inspiration has come to be embodied in a good deal of modern practice and defended by much theory. Ever since their origin our kindergartens have been play schools, play methods have crept from them up into the primary grades, and even the higher elementary grades, and the modern project method of teaching has as its basis a challenging interest that makes it akin in spirit to play. There is one contemporary school of educational theorists that is urging the universalization of the method of teaching through spontaneous activity, at least in the case of younger pupils.²

Value of Teaching through Play.—There can be no doubt that much that is valuable can be taught through play. The child can learn to count, to add, to subtract, multiply and divide through keeping the score in play; games can be made out of phonic or spelling drills; history and other stories can be dramatized; and countless other games can be utilized in such a way as to lead to educationally worthwhile ends. Play activities are much more real and meaningful to children than the artificial ones of the old time school, hence the learning got through them is vital instead of merely verbal.

Limitations of Play as a Means.—But while play is a splendid means of education so far as it can go, it has certain serious limitations as a method. Not everything can be economically taught through play. It is too round-about a method. There

¹ On prescription versus election see Lull and Wilson, *The Redirection of High School Instruction*, pages 14-20; and Snedden, *Sociological Determination of Educational Objectives*, pages 55-66.

² The disciples of John Dewey.

is too much lost motion in it. There are many masteries that can be achieved in much shorter time, and with no fatal loss of meaningfulness, by attacking them directly in the spirit of work. This is more largely true as one goes up the grades. Moreover, if we *could* teach everything in the whole school course through play, we should probably sacrifice a trait that is indispensable for a well-developed character if we did so—namely, the ability to endure the strains of hard and monotonous work when they come, as they inevitably will, in later life. This appeal for some occasions in school where hard strains must be endured is not, however, to be taken as an argument against appeals to *interest*—since that is only a challenge to eager searching by the individual and may well involve the endurance of hard strains—but it is a protest against putting school activities *always* on the level of behavior to which one is held by pleasure in the means rather than by interest in the goal, which is the connotation of *play*.

Snedden's Distinction between Alpha and Beta Activities.—In a well-rounded school system there is room for work and room for play. Professor Snedden has been contending that we should recognize a dichotomy all the way through our school system: on the one hand a series of hard work activities; on the other hand a series of spontaneous, developmental activities. He has called the former *Alpha* activities and the latter *Beta*. This dichotomy should run from the lower grades on up through college, though in the upper grades the term, "play," if attached to the Beta procedures, must have a little different connotation from that appropriate in the lower grades. Thus as examples of Alpha activities we would have: acquisition of a chronological background in history; the computation of percentage in arithmetic; learning to read music; the mastery of algebra and geometry; acquiring skill in penmanship. On the Beta side would be: getting enriched ideas through listening to stories; reading biographical history; physical culture through plays and games; general science and general mathematics for amateurs; music

appreciation through listening. The Alpha activities are obviously those to which you must hold yourself in spite of strains, for the sake of attaining a desired end—the imposition of an unnatural civilization; the Beta are those which so accord with your nature that you are carried through them without any instinctive rebellion but with, instead, a constant sense of self-expression.

Value of this Distinction.—Obviously no fixed dividing line can be drawn between Alpha and Beta subjects. The distinction is only partly in the subjects and partly in the teacher or the pupils. Yet on the whole this distinction seems to the writer a very useful one. If we admitted its reality and lived by the admission, we would not, on the one hand, be continually trying to sugar-coat certain intrinsically difficult studies at the expense of their integrity nor, on the other hand, be trying to make “respectably stiff” such studies as current events and appreciation of music or literature, which are killed by drudgery and saved by joyous and spontaneous interest.

This distinction of method would, then, involve that, after we had distributed to the several age levels the achievements we wished to win, we should study them to determine which require attack through the hard work spirit and which can attain their objectives best by being handled in the spontaneous, developmental spirit, and which require various degrees and admixtures of these two methods. If we would see to it that our school day was, at every age level, occupied partly by Alpha and partly by Beta activities, our program would involve less nervous strain, would escape the wastefulness and the flabbiness of a pure-play school while avoiding the sterility of the all-work school, and would eventuate in abilities to react on the several values and problems of modern civilization in a far more effective fashion than has usually been achieved by our present system.¹

¹ See Snedden, *Sociological Determination of Educational Objectives*, pp. 48-52 and 70-93; his *Educational Sociology*, pp. 327-34; or his article, “The High School of Tomorrow” in *The School Review*, January, 1919.

PROBLEMS FOR RESEARCH

1. Formulate a method by which it could be shown scientifically: (a) what is the most economical age at which to begin formal efforts to teach reading; (b) at which to stress drills in penmanship; (c) at which to teach pupils to read music.
2. Formulate methods for determining at what ages needs and interests chiefly arise for certain types of instruction in social science. In natural science.
3. Look up the "culture epoch" theory, and the theory of "genetic stages," as bases for grading materials, and consider how much headway could be made by their use in placing details in the course of study.
4. Look through elementary school text-books and courses of study and ascertain how much they depart from giving the tools of education. Explain these deviations.
5. Construct a scorecard for measuring the merit of junior high school curriculums, weighting its elements according to importance, and with it evaluate the curriculums of a number of typical junior high school curriculums.
6. (a) Run through books and articles on the junior and senior high school and determine what are the prevailing theories regarding prescription versus election of studies. (b) Study the curriculums of a number of representative high schools to determine what is the prevailing practice, and what theories seem to have determined the practice. Compare (a) and (b).
7. From an investigation of representative courses of study, what law do you find regarding the extension of opportunity for election as one goes up the grades. Criticise this.
8. Work out a plan for a course in general social science, or in general language, that would perform the functions called for in this chapter.

REFERENCES FOR FURTHER READING

- BONSER, F. G., *The Elementary School Curriculum*, chapter 4.
(A good short chapter on "Periods of Education in Terms of Life Purposes.")
- BRIGGS, THOMAS H., *The Junior High School*, chapter 6.
(Principles involved in making curricula for junior high schools and survey of practices.)
- CHARTERS, W. W., *Curriculum Construction*, chapter X.
(On the grading of curricular materials.)

DEWEY, JOHN AND EVELYN, *Schools of Tomorrow*.

(Examples of schools embodying the principle of learning through spontaneous activity.)

HENDERSON, E. M., *Text Book in the Principles of Education*, chapter XII.

(Evaluation and criticism of play in education.)

JOHNSTON, NEWLON AND PICKELL, *Junior-Senior High School Administration*.

(Pages 172-186 deal with curriculum organization.)

KOOS, LEONARD, *Secondary School Units*.

(A survey of practice in the United States regarding the content and the organization of the secondary school course.)

LULL AND WILSON, *The Redirection of High School Instruction*.

(Chapter 2 deals with "The Social Core of the High School Curriculum," but practically all of the chapters relate more or less to our problem.)

MERIAM, J. L., *Child Life and the Curriculum*.

(A curriculum constructed largely on the activities to which children spontaneously take.)

SMITH, F. W., *The High School*, chapter 23.

(Discusses the program of the twentieth century high school, giving many examples of curriculums.)

SNEDDEN, DAVID, *Problems of Secondary Education*, chapters III and XII.

(Problem of prescription. Also challenge to reorganization on basis of study of educational values.)

—, *Sociological Determination of Educational Objectives*, chapter 2 and chapter 4.

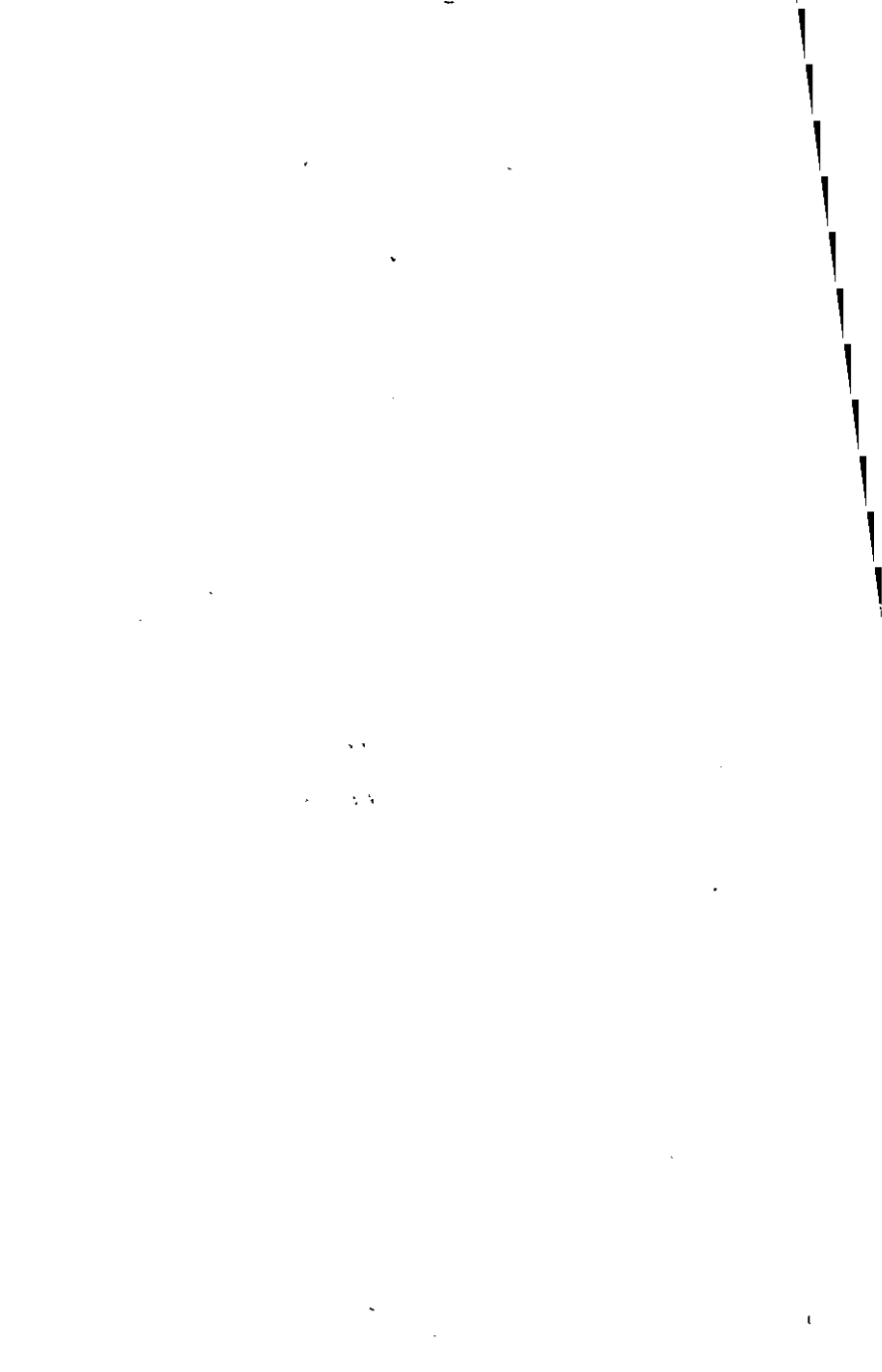
(The former discusses organization of the curriculum in the junior high school and the latter in the senior high school.)

STOUT, JOHN E., *The High School*, chapters 28 and 29.

(Chapter 28 discusses problem of election versus prescription and 29 the social organization and the curriculum.)

PART II

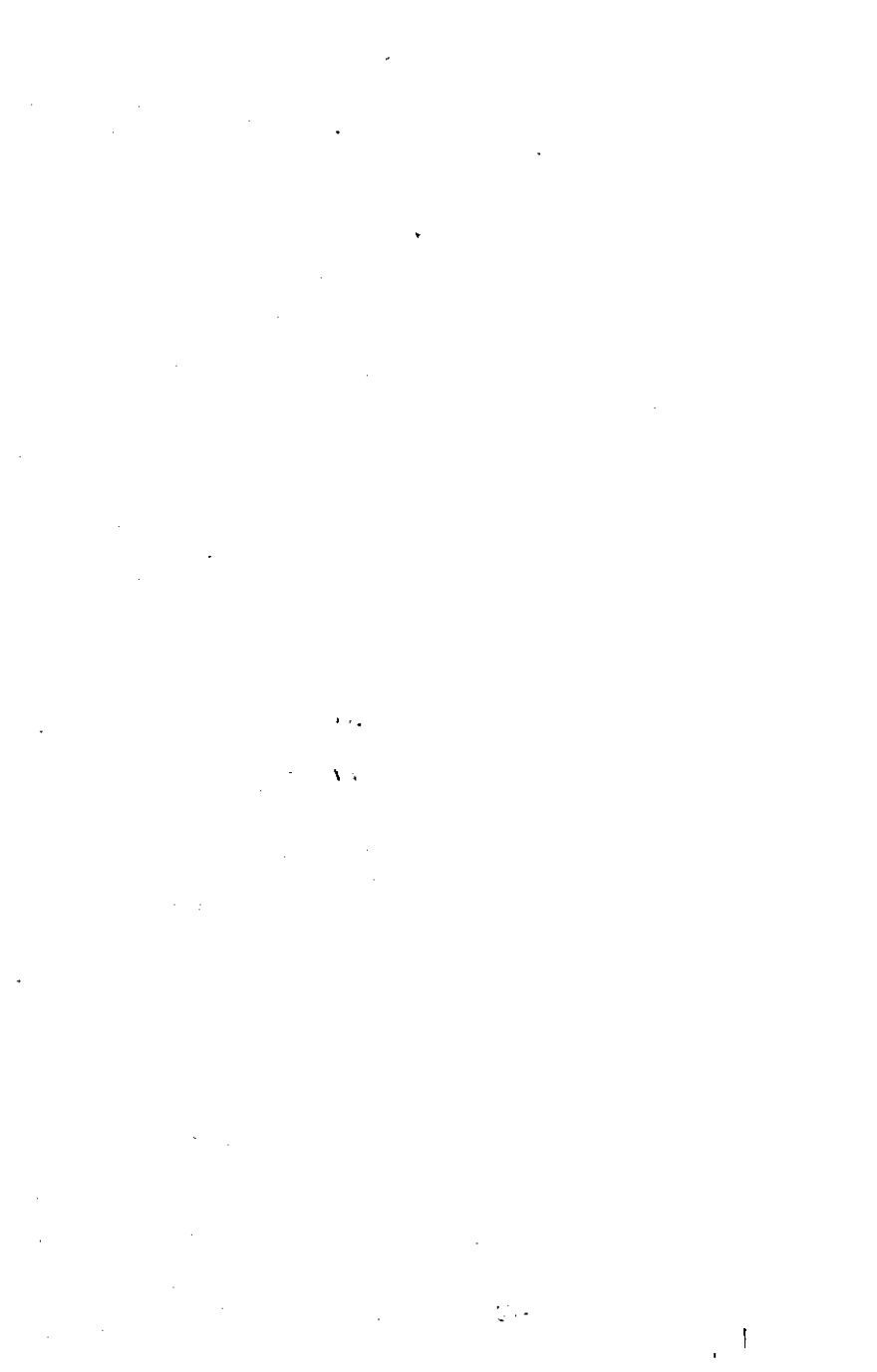
**SCIENTIFIC METHODS FOR DETERMINING
THE OBJECTIVES OF SCHOOL EDUCATION**



INTRODUCTORY NOTE

Part II of this volume is devoted to the formulation of methods for quantitatively controlled research through the use of which a science of Educational Sociology may ultimately be worked out. I have undertaken to make the discussion concrete by giving the results of some studies which employed the methods described. I have narrated my failures as well as my successes, since it is often as illuminating in the development of technique to know what did not work out, and why it did not, as to know what did prove successful.

It is the writer's conviction that our most pressing problem at present is the development of an adequate technique for research as a basis for curriculum making. Hitherto our procedure has been either empirical or scientific only in spots. Not only do those who organize research need to give more careful consideration to technique than has been given to it in the studies in this field, but the rank and file of teachers and school officers also need an understanding of it; for many of them will themselves have occasion to assist in conducting researches while all others should know enough about the matter to sympathize with, and appreciate, what is being done.



CHAPTER XVII

SCIENTIFIC METHODS OF ISOLATING THE OBJECTIVES OF EDUCATION

Need for Consideration of Objectives.—Within the past four or five years, much has been said about the reconstruction of school curricula on the basis of a consideration of the objectives of education. A movement for the systematic isolation of these objectives, as a groundwork for such curricular reconstruction, is now getting well under way and gives promise of assuming the center of the stage in our pedagogical arena during the next ten years, as standardized tests and measurements have done during the past decade, adjustment of teaching to individual differences during the preceding, and Herbartianism in the decade before that.

Hitherto in the selection of our subject-matter, we have for the most part been following the method of blind chance. We have found, thanks to the exigencies of educational history, certain units of traditional subject-matter on our hands and certain men and women who, as scholars, loved those bits of subject-matter; and so they devoted themselves to teaching them to others, with the blind faith that they would somehow find a way to function in the lives of the pupils. In practice, of course, the case has not been quite so bad as that. For the selective forces of "social evolution" were operating and, given time enough—though "the mills of the gods grind slowly"—these forces tended to crowd out the most completely useless material and to buoy upward that which was better adapted to socially useful ends.¹ But, at any rate, the procedure has consisted in taking subject-matter first and then afterwards trying to

¹ See pages 279-80.

find functions for it—if one ever bothered himself about functions at all. The method now proposed is the reverse—that one should first find out, by a sociological study, what are the specific ends that education must serve and then, untrammelled by tradition, cast about for the subject-matter and the methods that will enable him best to realize these ends.

Dissenting thinkers.—There are, it must be admitted, many first-rate thinkers of the present who do not acknowledge the legitimacy of this proposed method of curriculum making. They do not believe that such entities as culture and citizenship can be resolved into particular educational objectives without losing between the items certain synthetic principles in which the very essence of the efficiency resides. They hold that if teachers faithfully impart to students the rich lore of the subjects that time has tested, results can be trusted to take care of themselves in the future as they have in the past. They feel that to ask why each item should be taught or each method used, will inevitably make for artificiality and will court disaster. They want devotion to pure scholarship and to high ideals on the part of teachers, and spontaneity on the part of pupils, without the crassness involved in asking what it is all for. They are confident that if these attitudes obtain, the delicate flower of learning will come naturally to its richest florescence.

The reader who has followed through this volume will recognize how completely the author disagrees with this group, although it is still perhaps the majority group. He belongs to the group who consider that faith poetically fine but mystical. We believe that teachers who do not analyze their aims and govern their practices by definite objectives are "blind leading the blind." We contend that the most imperative essential for eliminating the waste involved in much current education is a minute analysis, and a ruthless scrutiny, of educational objectives. What has been said in all the preceding chapters of this book explains our reason for this position.

Study of Aims in the Past.—The effort to define educational aims, which is now engaging the group to which the writer belongs, is not, of course, by any means the first one in the history of education. Ever since society began to shape men for social living through purposive manipulation, the desiderated ends toward which they were being molded were at least vaguely conceived and often more or less explicitly formulated. More than that, this formulation was often put in terms of preparation for the actual problems of life. That education should fit one for effective living within the society in which he would move, was more or less specifically demanded by such writers as Plato, Defoe, Montaigne, Locke, Rousseau, and Spencer. Indeed it has doubtless been in the mind of practically everyone who has thought seriously about the problem. The only difference has been in the conceptions various scholars have held as to what *constitutes* optimum preparation for life.

But one serious limitation ran through all of these definitions and demands: they were not analytic. They stopped with omnibus terms. Even when analysis was consciously and explicitly undertaken, the analysis of the terms under study was into only a few large elements—as, for example, in Harris's "Five Windows of the Soul," Butler's "Five-Fold Inheritance," and Eliot's "New Definition of the Cultivated Man." These definitions and analyses left us with such very comprehensive, and consequently indefinite, aims that they could not guide the details of our practice; so that one might be entirely orthodox in his recital of the aim of education and yet be almost completely without particular purposes in his daily teaching or supervisory activities.

The New Study of Aims.—The study of the aims of education that is now engaging attention is distinguished from the older ones by its exhaustively analytic character. It undertakes to particularize our goals so that each hour of a teacher's activity may be headed toward an end that has been specifically defined and that has been more or less con-

sciously scrutinized as to its social importance. The current study aspires to carry the investigation of educational objectives into such detail that for every lesson a class room teacher undertakes to conduct he can be guided by an end toward which to shape his efforts—which end shall not be the product of his passing whim nor of the accidental association of ideas, but one for the relative importance of which he has scientific evidence. That will mean that the few large aims of education of the older day, like culture, citizenship, initiative, etc., shall be replaced with ten or twenty thousand very specific objectives in the form of abilities to do particular things on the part of the pupils, each to be consciously and purposively pursued with school subjects as means,—such abilities, for example, as: ability to mark a ballot correctly from the mechanical point of view; ability to understand and resist mob mania; ability to read newspapers rapidly and discriminatingly; ability to appreciate the allusion when the aristocracy of Fifth Avenue is referred to; ability to recognize the on-coming of squint and to realize the importance of getting immediate attention for it; and hundreds of others.

Rise of the Movement to Isolate Particularized Objectives.—During the past decade, beginning with the propagandist work of Suzzallo and Snedden, and with the researches of the N. E. A. committees on Minimum Essentials in the Course of Study which were published in the yearbooks of the National Society for the Study of Education from 1915 to 1918, we have had a number of vigorous attempts to isolate such particularized objectives. These studies appear to have engaged a number of scholars almost simultaneously. The writer's project to district the whole area of social efficiency into several subdivisions and then to resolve each of these into its particular demands, goes back to the summer of 1916, at which time culture was analyzed into specific items. Between then and 1918 health, civic, domestic, general vocational and moral efficiency were each particularized into

an aggregate of two or three hundred items, essentially as they now appear in Appendix A of this volume; but these analyses were withheld from publication while more systematic and objective methods were sought to insure their completeness and to remove from them the influence of the personal equation, thus making them scientific. In the fall of 1918 Professor Bobbitt's book, *The Curriculum*, appeared, in which he urged particularization of objectives as a basis of curriculum construction. He had ready at that time several long lists of such objectives which he failed to include in this book only because of lack of space. In the December, 1920, number of the *School Review* he gave one of these lists (on health) as a type. In the fall of 1918 a committee of Illinois schoolmen, under the influence of Professor Charters, set about a study of objectives as a basis for curriculum making. A year later their committee on publications, having made a search through the literature, reported that nothing worthy had been published, and the committee entered upon a co-operative study of its own. In January, 1922, they published their findings so far in a rather elaborate list of objectives. In June, 1922, Professor Bobbitt gave out, in a monograph on *Curriculum Building in Los Angeles*, the most elaborate list of objectives yet made public. The publication of Charters's *Curriculum Construction* carried further the formulation of technique and presented the results of some new studies. A number of other, but less complete, studies of objectives have also been published.

Further Refinement of Technique Needed.—In view of the fact that the serious study of educational objectives has had a history of less than ten years, and considering the extraordinarily complex and difficult character of the task, much headway has been made. But as a bit of scientific procedure the one used in this study, along with most other approaches to Educational Sociology of which it is a part, is as yet little more than aspiration. The methods that have been used have lacked either the systematic character or the objectivity

necessary to entitle them to the claim of being scientific, or to make their findings a safe basis for practical application, as the writer will attempt to show throughout the following discussion. It is the purpose of these chapters to make some suggestions toward the formulation of a technique for scientific research in this field, and to illustrate some of these suggestions with the results of concrete studies.

Districting the Field.—We wish to learn, by a sociological study, what are the particular “fitnesses” essential for living most efficiently in society, in order that we may make these fitnesses the goals of purposive education. But there are many of these fitnesses, very many, in the whole realm of social efficiency and our task will be so complex as to be next to impossible of fulfilment if we seek to drive the whole array abreast. Our first problem must, therefore, be to district the field, so that we may exploit one division of it after another, just as one will do better in hunting for a lost article if he covers systematically one section of space after another instead of rambling over the whole tract.

Unfortunately nature has not, for our convenience here, made up the social order into closed compartments with fixed lines of cleavage between them. There is, therefore, no one inevitable method of districting. That one is best that is most convenient—that has a reasonable number of divisions each centering about a generally understood principle of classification, and among the divisions of which there is the least duplication. The writer prefers, as most natural and having the least overlapping, a rather conventional six-fold division into:

1. Vocational efficiency.
2. Cultural efficiency.
3. Socio-civic efficiency.
4. Vital (health) efficiency.
5. Moral efficiency.
6. Domestic efficiency.

Professor Snedden makes four divisions: cultural, vocational, social and physical. The Illinois schoolmen use: health, wealth, association, and beauty. The N. E. A. Commission on Reorganization of Secondary Education, in its "Cardinal Principles of Secondary Education," sets up seven categories, as follows:

1. Health.
2. Command of the fundamental processes.
3. Worthy home membership.
4. Vocation.
5. Citizenship.
6. Worthy use of leisure.
7. Ethical character.

Professor Bobbitt proposes districting into a still larger number, namely nine.¹

It will be seen that the writer's list is practically identical with that of the N. E. A. committee except in respect to two items. They substitute "worthy use of leisure" for culture and add "command of the fundamental processes." It seems to the writer distinctly bad to list *command of the fundamental processes* as one of the divisions. It is not at all homogeneous with the rest. In all the others our eyes are on the process of living within a certain area of social activity, but in speaking of *command of the fundamental processes* our point of departure becomes that of subject-matter. It is much the same as if we should district our field into vocation, culture, health and history. A category that starts from the subject-matter point of view involves the serious danger that one may teach these fundamental processes as worth while in themselves, instead of merely as instruments toward some kind of efficiency. (Has that ever happened with respect to refinements in the fundamental processes of arithmetic, oral reading, etc.?) It is far safer to let a study of vocational, civic, moral, cultural, hygienic and domestic efficiency reveal what fundamental processes are needed for them, and then to see to it that just

¹ See his article in *The School Review* for December, 1920.

these find a place in our school curriculums. Nor does the substitution of "worthy use of leisure" for culture seem a defensible one. For there are extremely important elements of culture that center, not about leisure but about work, or about other relationships, and these can find no place in the national committee's list. Space does not permit a detailed criticism of the other proposed divisions, but it may be pointed out that some of their "districts" are so very large as to make subdivisions within them necessary for the same reason that made us wish to divide up the whole field originally.

Having districted our field according to any convenient plan, our next problem is to ascertain what are the particular fitnesses necessary for optimum living within each of the areas. Passing by, as unscientific, the method of arm-chair (philosophical) analysis, in which one or two men seek to resolve the thing into its logical elements, we have available at least six methods that can support a claim to scientific validity.

I. THE METHOD OF SYSTEMATIC JOB ANALYSIS

Meaning of Job Analysis.—The method of systematic job analysis consists in observing a job and listing out its elements. Very often the worker himself is able to give no complete account of what he is doing. When any emergency arises he is able intuitively to deal with it, but, apart from the work itself, he could give no analysis of its requirements. But a bystander of analytic mind can watch him for a few hours, or a few days, list the various activities he is called upon to perform, and thus get a basis for determining the specific fitnesses he must have for performing these activities. If such bystander observe not only a single worker but many workers in the same trade under different conditions, he might at length get listed practically every significant element in the job. If his analysis were supplemented by that of five, ten, fifty, or a hundred other observers, each with pencil in hand

watching workers at the job, their combined enumeration of elements would be likely to be almost completely exhaustive.

"Analyzing the trade means simply listing out all the things that the learner must be taught if he is to be taught the complete trade. If the trade is that of carpenter, the instructor notes down all the different jobs that a carpenter has to do. If it is plumbing, or bookbinding, or machine shop work, the same listing of jobs must be carried out. If, in addition to the jobs themselves, there are certain special words (technical terms) whose use he must learn, or special tools whose names he must know, or constructions or computations which he must be able to make or special safety precautions that he must take, these must also be listed completely out.

"The point in each case is to make a complete list of *all* the man must know when the instructor has trained him for the complete trade. If less than the complete trade is to be taught, then the problem is to pick out what is required in that case from the complete trade list."¹

A number of vocational surveys have been made on this basis. One of the best representatives of these is the *Minneapolis Survey for Vocational Education*, the report of which was published by the National Society for the Promotion of Industrial Education. Four hundred and eighty pages of this report are devoted to analytic accounts of the tasks confronting workers in scores of occupations and the abilities needed for meeting these. Professor Charters, in his *Curriculum Construction*, also summarizes a number of analyses of different kinds of jobs.

Difficulty of Job Analysis in Some Fields.—So far this method has been used most effectively in the field of the manual arts; but there is no reason why it need be limited to this field. It is possible to regard the maintenance of health, or citizenship, or even personal culture, as well as other types of activity, as "jobs" and to endeavor to list the tasks, or prob-

¹ C. R. Allen in *The Instructor, the Man, and the Job*, page 43. J. B. Lippincott Company.

lems, they present to one engaged in them. But these "jobs" are naturally much more complex, more varied from time to time and from individual to individual, and more intangible in their requirements, than the manual ones. One could not take paper and pencil in hand and note down all their requirements with anything like the same finality and assurance with which he can analyze the job of the journeyman plumber. But certain phases of these larger jobs can be analyzed, and there are available statistical methods that can make such analyses, so far as they go, very suggestive. When the direct job-analysis method is supplemented by certain indirect methods, to be described later, there is no reason why they cannot be made to go the whole way, even with the most complex and intangible phases of social efficiency.

Job Analysis in the Minimum Essentials Studies.—The job-analysis method has been already employed in this broader field in several different forms. The first of these forms is that used in some of the studies of Minimum Essentials in the Course of Study, reported mostly in the 14th, 16th, and 17th Year Books of the National Society for the Study of Education. Bagley had his students read magazines and newspapers and listed the items of history and geography referred to in them. Bassett analyzed state and national political platforms for a long period of years to discover what were the matters that have been put before the voters, on the supposition that the problems presented in the past would give a clue to those to be expected in the future. Wilson gathered the arithmetical problems 1437 persons of various occupations actually encountered in a period of time as revealed by the diaries they were asked to keep; and Mitchell studied catalogues, advertisements, cook books, pay rolls, etc., to determine what computations people are called upon to make in life as it actually goes on. This same sort of study has been conducted in a number of fields since that date, the most noteworthy example being that of Superintendent C. W. Washburne, who has made a very elaborate investigation of the

basic facts needed in history and geography by analyzing periodical literature to determine what items were referred to in it.

Criticism of These Studies.—As a step in the development of technique these studies have been of the utmost significance. They have demonstrated the feasibility of a method in this field that is objective and quantitative. But they did not, and could not, employ this technique in such a way as to give results sufficiently conclusive to justify construction of a curriculum on them as a basis. For they were but fragmentary, unsystematic. They plunged in at those points that easily lent themselves to quantitative treatment, while completely ignoring those uses that did not do so. They give us *some* minimum essentials but it would be a rash and unscientific assumption to claim that they give us, or ever could except by the merest chance give us, *the* minimum essentials of history, of civics, or of arithmetic. Their limitation lies in the fact that they turn upon only *some kinds of uses*, while the reconstruction of our curriculum must rest upon a systematic consideration of all kinds of legitimate uses lest it prove to be even more unbalanced than the one it is meant to "correct."

The difference I have in mind between systematic and fragmentary job analysis I may illustrate from an application to cultural education. By the use of methods to be described as we go on, the writer has analyzed culture into sixty-eight constituent elements, grouped under six headings, of which the following is one of the six divisions:

VI. Ability to realize that one's world is a rational and coherent whole.

1. Ability to see in historical perspective the things met with in daily life.
 - a. Understand *words* in the light of their origin.
 - b. See social and economic *institutions* in the light of how they came about, and thus be given better balance toward them.

- c. See political conditions (as parties) and political questions in the light of their historical origins.
 - d. See elements of art (literature, music, painting, sculpture) in the light of their historical setting.
2. Possession of the scientific sense.
 - a. Feeling that everything is brought about by scientific causes, nothing by "signs," chance, or magic. (Freedom from superstition, plus.)
 - b. Knowledge of the causes that bring things about, so that they can be understood and appreciated in the light of these causes.
 - (1) Knowledge of the causes of physical phenomena, such as what has made the sidewalk crack, what makes a telephone wire "sing" or what makes an electric motor go.
 - (2) Knowledge of the causes of weather conditions, or other atmospheric phenomena.
 - (3) Knowledge of the causes of economic phenomena, as changes of price level.
 - (4) Knowledge of the causes of social phenomena, as of mob behavior, resistance to progress, etc.
 - (5) Appreciation of the scientific structure of language.
 3. At least superficial acquaintance with wide variety of matters, so as not to be entirely ignorant of practically anything met with in reading or heard about, but able to get satisfactions out of placing these in their proper setting.
 4. Ability to see own work as social service and therefore dignified.
 5. Ability to see in proper perspective own "set," community, state, or nation.
 - a. Ability to find beauties, possibilities, and other worthy elements in own environment and group.
 - b. Restraint from overestimating own "set," community, or nation, and having due appreciation of the worth of other groups or communities.

Now the matter that Bagley and Washburne studied would come, as far as culture is concerned, under item 3 above. There is great satisfaction, when one meets a reference to Andrew Jackson or to Grant's campaign in Virginia, in being able to "place" the thing in its setting. It gives one perspective, a sense of pleasure and largeness; while not to be able to place the reference produces a certain annoyance, or at least keeps closed vistas that might otherwise be open. And how important it is to be able to place any given reference depends, if other things are equal, upon how frequently that reference is likely to be met. It is thus a part of the "job" of culture to be able to "place" references, and a quantitative study of the literature most likely to be read, or the oral deliverances most likely to be listened to, is needed to reveal which references are most frequently recurrent.

But to place references is only *one* element of the job of culture, and indeed only one of many to which *history* can contribute. History can also contribute to b, c, and d under 1; to a and b under 2; and probably to 4 and 5; and to a number of elements of culture out of the other five divisions not given here. Besides it can also contribute to a number of items under civic, moral, and health efficiency. For many of these contributions the kind of history needed is very different from that which Bagley's and Washburne's methods could discover. Before we have really the minimum essentials of a study we must trace out *each* of the items to which it can be made to contribute and must learn what are the elements of the job in each of them. A similar case of fragmentariness could be made out for the other studies mentioned above.

In fact all of the studies that employ the methods used by the minimum-essentials committees begin at the wrong end. The investigator plunges into that one element of the job upon which he happens to stumble, ignoring all the other elements. A systematic study must begin at the beginning by first "spotting" all the various types of jobs within the whole realm of individual and social life. To each one

of these jobs it must then apply some such methods as these committees used in order to discover the specific exactions of each. Until we have thus traced out, by objective and quantitative methods, the ramifications of *each* job to which the material we are scrutinizing has any pertinency, we cannot know what are its minimum essentials. Inevitably, then, a quantitative study of any particular job must be preceded by a qualitative study designed to resolve the whole field into its constituent jobs.¹

Analysis from General Observation.—A second form of the job-analysis method has been employed by Professor Bobbitt at the University of Chicago. He had members of his seminar write down as many specific essentials as they could think of under the headings of health, general mental efficiency, and his other divisions of the field of social efficiency.² He then telescoped these lists together and made a very long composite list of educational objectives—some hundreds of items in the catalog of objectives for the high school drawn up for the city of Los Angeles. Essentially the same method has been employed by a group of Illinois schoolmen, some of whom were students of Bobbitt, in arriving at four long lists of objectives published in the "Proceedings of the High School Conference held at the University of Illinois, November, 1921" and reprinted, in slightly modified form, in the report for 1922.

Criticism of the Method.—This method has the merit of undertaking to cover the field systematically instead of dipping in here and there fragmentarily, as was the case with the investigations whose procedure was criticised above. But it has the serious defect of being too largely subjective. It amounts to little more than a collection of *opinions* as to what is essential to efficient living. To be sure the judges are expected to base their lists of essentials upon consideration of the job, but they survey this job only in memory and in the lump. They are thinking of what "people" need for the maintenance of health, vocation, and so on. In such

¹ See Appendix B.

² See his article in the *School Review* for December, 1920.

"general" observations there is tremendously large room for the personal equation to enter. With such an abstract object as what "the people" need, one slips easily back into a *logical* analysis and injects into his list what his sense of proportion makes him feel ought to be there. And often this sense of proportion is merely the creation of his own predilections, or of tradition, so that an individual's list is likely to diverge, at least in spots, very widely from that which a controlled observation of the facts would justify. Throughout the last five years the writer has tried out, with many different kinds of judges and in different forms, these "lump analyses" and has become more and more convinced of their uselessness. To the extent to which one allows his judges to indicate what "people" need, to that extent they get away from the facts and fall back upon their opinions. If judgments are to be trustworthy they must be held down to what particular individuals have had need for in particular situations. For a scientific method in educational sociology we need exactly the same principle upon which scientific method in general rests—some effective method of *controlling* observation. Of course the lump analyses of many judges telescoped together is likely to be less biased than that of a single individual, but even with many judges, where such deeply ingrained educational superstitions as we have are at work, elements are likely to find a way into the composite list that controlled observation would not justify, and elements be left out that fidelity to the facts would admit. One cannot read through Bobbitt's list of health objectives given in the *School Review*, or through the Illinois schoolmen's list, without being convinced that some elements have been read into the situation on account of the predilections of the judges. In drawing up a list of essentials for efficient living it is not *opinion* that we want, not even consensus of opinion, but *systematically controlled observation*. Professor Charters has criticised Bobbitt's procedure also on the ground that it does not distinguish between *activities* and the *abilities* necessary for

meeting them. He points out that a study of society should show us what activities one is called upon to perform and then make an analysis to determine what ideals, information etc., are necessary for performing these activities.¹

Bobbitt's Modest Claims.—It is only fair to say that Professor Bobbitt claims no greater scientific validity for his method than it is entitled to. He asserts only that it is a method that can be immediately put to use.

“The practical school man wants to know how to draw up courses of study which look in the direction of current progress, and which he can have ready for next year’s work. He knows the value of scientific method in curriculum-making; but he further knows that the necessary science is not likely to be sufficiently developed in this generation. He wants to use that nearest approximation to science which is available for his practical purposes. The work which is now going on in Los Angeles in the re-examination of current courses of study in junior and senior high schools presents a method of procedure. It is one which takes full account of the practical situation as it is. It attempts to find only the next possible and desirable steps of progress; to take those and go no farther until conditions are ripe for going farther. Yet at the same time, the method looks to the fundamentals of the curriculum. It plows as deeply in preparation for the work as if it intended a rather complete reformulation of the curriculum without regard to the present situation. The major problem was thus how to provide for only the immediate ‘next steps of progress’ and yet do it all on the basis of fundamentals. . . . While we refer to it as being relatively finished, as a matter of fact it must be remembered that it represented but the empirical judgments of several hundred professional men and women; it did not represent the fruits of any scientific studies in the field of education. It is a pioneer formulation which is yet upon the level of hypothesis.”²

¹ *School Review*, Volume 31, pages 95-103.

² *Curriculum Building in Los Angeles*, pages 1 and 5. This monograph is out of print but its substance has been incorporated in a more extended book, *How to Make a Curriculum*, published by the Houghton, Mifflin Co.

A tentative list of objectives, even though somewhat distorted by current educational superstitions, is certainly much better than the vague, lump ideas hitherto guiding our practice. It can serve us well until we shall have time to work out a safer list by genuinely scientific methods.

One-Man Analyses.—A number of lists of objectives have been given out based on one man's analysis.¹ In one respect a list made out by a well qualified single individual may be better than a composite one, as these composite ones turn out in practice. The single individual is likely to be better qualified for the analysis than the average for the group—certainly better than that member of the group who has the minimum ability and takes the minimum care, upon whom the trustworthiness of the list largely depends—and he is likely to make his analysis much more carefully and painstakingly than any member of the group. But the defect involved in the fact that observation is not systematically controlled is just as serious here as there, and the danger of omissions, and of inclusions determined by the personal equation, is much greater; so that the single-judge analyses are even more unscientific than the composite ones.

Judgments on Needed Courses.—Another variation is that involving a direct estimate by several judges of the need for certain courses, or of the value of such courses. For example, the Department of Sociology of a university in the Middle West sent out a questionnaire seeking the reaction of a number of persons on the question as to what, in their belief, individuals of certain specified classes need to know on a considerable list of proposed topics. Such effort to ascertain what the schools should teach by getting consensus of opinion from many persons who have sampled studies, or who for other reasons are supposed to be connoisseurs, is a very common one, and is likely to occur to the rather casual

¹ See, for example, Harap, "Objectives of Community Civics," *School and Society*, Volume 12, pages 634-8 and Mead, "General Plan for a Course in Economics," *School Review*, Volume 30, pages 294-99.

investigator as the first resort.¹ But I believe it will be obvious to the reader that this method is open to all of the objections of the ones criticised above and in addition has the unfortunate feature of turning attention to subject-matter rather than to needed "fitnesses" in the individual. It is much safer to inquire first what sort of equipment the individual needs and then afterwards to raise the question of what subject-matter will best give him this equipment—settling the latter point if possible by parallel group experimentation with different types of subject-matter—than to seek an answer to the question of what subject-matter directly.

The Individual Diary.—A third, and far more promising, form of the method of systematic job analysis is that proposed by Professor Charters—the individual diary. Let us have, from several thousand people in various walks of life, detailed diaries covering a reasonably long period of time, indicating just what experiences they have met. Let us either have them keep these diaries within a single area—cultural, civic, health, etc.—or let us separate and classify the items when the diaries have been turned in. Of course the task of inducing a sufficiently large number of people to keep these diaries, to get the kind of people we want, and to get them to keep the records in the detailed form we need, will be our most difficult task. It will probably prove necessary to compensate many of them for doing so, because we shall need reports from classes of people some of whom will not be actuated by the "Platonic urge." The suggestion of paying for co-operation will probably strike the reader as preposterous but my experience has hinted, at least, that this is a good business investment. I recently completed a large bit of research demanding co-operation from a considerable number of persons and requiring some time from each respondent. I tried first to get the co-operation on a volun-

¹ For additional examples see Starch, *Educational Psychology*, pages 217-222; *The School Review*, Volume 29, pages 119-134; and the Report of the National Committee on Mathematical Requirements, *The Reorganization of Mathematics in Secondary Education*, pages 45 and 46.

tary basis, depending upon "willingness to assist in a good cause," with the poor success that usually attends that sort of thing. I then, supported by a committee that had funds available to make the inquiry a success, offered just compensation for the time involved. It was surprising to see how much more general, and how much more painstaking, were the responses when paid for time than when begged. A little rough experience may shake us out of our academic impracticality and awaken us to the necessity of placing our researches on a hard-headed, business basis. But if we take the matter seriously enough it will be possible to collect some thousands of diaries and telescope their elements together into what ought to prove a very significant analysis of the problem of living. The writer has had his classes in Educational Sociology keep "culture diaries," but has as yet too few of these to serve as a basis for generalizing.¹

II. THE METHOD OF DEFECTS

Meaning of the Method of Defects.—A second possible method for isolating the fitnesses needed for efficient living is the Method of Defects. In using this method we seek to find out wherein efficiency breaks down and we set up the complementary positive of each of the deficiencies as the essential fitnesses. If a large percentage of errors of speech

¹ The following is given as a sample diary:

Saturday: Went to basket ball tournament. Enjoy basket ball because I have played and know the rules somewhat.

Sunday: Saw two robins. Went to see a house that is partly built; work had to stop because of weather conditions.

Monday: Read a story in the *Mirror*. Having had German, I was able to appreciate the German remarks in the story.

Tuesday: Translated an Italian story from German to English. Having remembered some of my history and geography, I was able to recognize the different towns and islands mentioned.

Wednesday: Started taking typewriting. As I was working away diligently, the laws of learning that I had in Educational Psychology came back to me.

Thursday: In reading Urban Sociology collateral I ran across many references to works of art and artists in Europe. The fact that I recognized many of them made the reading much more interesting.

Friday: Read an article on "Julia Marlowe's Voice." As I had seen her in *Hamlet* and *Twelfth Night* a short time before, this article was very interesting to me.

is found in the use of the wrong case form after an intransitive verb, then the ability to recognize and use the correct case form (the necessary knowledge, habits, ideals, etc.) is one of the elements of correct-speaking ability toward which our training should drive. If inability to mark a ballot correctly militates against the optimum functioning of citizenship in concrete cases, then a knowledge of how to mark a ballot, with the necessary attendant habits and ideals, is indicated as one of the essentials of citizenship. If lack of a knowledge of the causes of physical phenomena impoverishes, to some extent, the culture of particular individuals, then the presence of such insight is one of the elements of culture.

Illustration of the Method.—Professor Charters used this method to ascertain what training is needed in English grammar. He collected and classified the errors in written and oral language made by school children in Kansas City and elsewhere, and used the results as a basis for proposing a course in grammar. Buellesfield has pointed out to us what traits must be possessed by the successful teacher by giving a table of the causes of failure in teaching reported to him by many superintendents. Mr. Alderman has made a study of the causes which bring Iowa citizens into court as an indication of what civic instruction Iowa laymen need. A list of causes for the breakdown of health of a thousand individuals, taken if possible from the case books of physicians, would give us a valuable index of the knowledge, habits, and ideals one needs for maintaining physical efficiency. A digest of the reasons for marital failures, which might be secured from the record of social workers or from domestic relations and juvenile-court officials, would give us at least a good start in an analysis of domestic efficiency. Citizenship and morality could be treated in the same way. For several semesters the writer has collected from his classes in Educational Sociology lists of the experienced cultural deficiencies of the members—their statements of the things on account of the lack of which they have felt themselves

handicapped. The reports were not signed, and no pressure was brought to have every one give in a list. Eighty lists have been turned in by as many students, all juniors and seniors in college, and a summary of these is given below. The deficiencies are given in the most definitely specific form in which they were reported. The numbers placed before each item show the number of students reporting the deficiency.

CULTURAL DEFICIENCIES EXPERIENCED BY EIGHTY COLLEGE STUDENTS

I

54. Lack of knowledge of current events.
20. Lack of knowledge of current literature.
6. Lack of knowledge of current art and music.
6. Lack of knowledge of present-day personages.
5. Lack of habit of reading newspapers.
3. Lack of interest in reading newspapers, magazines, and books.
1. Lack of interest in, and appreciation of, current social questions.

II

42. Inability to appreciate painting and sculpture.
5. Inability to analyze art and talk of it in terms of its technique.
4. Lack of knowledge of good paintings and sculpture.
4. Inability to appreciate nature.
1. Inability to retain names of good paintings, pieces of sculpture, or music.

III

23. Poor conversationalist.
17. Weak in keeping up a conversation or in "steering" it.
7. Inability to converse over wide range of interests, or outside of own special interests.
6. Inability to make real contribution to conversation.
5. Too talkative, garrulous, monopolize conversation.
3. Not a good listener.
4. Inability to converse with superiors satisfactorily.
5. Lack of habit of participating in conversation when in crowd.
2. Inability to converse with variety of classes of people.
2. Absentminded in conversation, inattentive.
1. Lack of necessary knowledge of subject matter to keep up worth while conversation.

336 FOUNDATIONS OF EDUCATIONAL SOCIOLOGY

1. Inability to indulge in "small talk."
1. Inability to get self out of conversation.

IV

30. Inability to appreciate music, and more specifically to appreciate "classical" music.
 7. Inability to analyze music and talk of it in terms of its technique.
 7. Inability to play any musical instrument.
 6. Lack of knowledge of classical music.
 4. Lack of knowledge of current music.
 4. Inability to sing.

V

17. Lack of appreciation of good literature.
 9. Lack of knowledge of good literature.
 3. Lack of knowledge of the Bible.
 2. Inability to criticise literature in terms of its technique.
 1. Inability to enjoy reading deep literature.

VI

21. Failure to observe the forms of etiquette; lack of knowledge of the rules of etiquette.
 5. Carelessness about personal appearance.
 3. Lack of ability to entertain, to make people feel at home.
 2. Dislike of formal social functions.
 2. Lack of taste in dressing.
 1. Inability to respond to a toast properly.

VII

18. Too limited vocabulary.
12. Excessive use of slang.
 3. Lack of ability to make proper choice of words.
 7. Lack of ability to express self clearly and smoothly.
 7. Poor penman.
 3. Inability to use correct English.
 3. Inability to write interesting personal letters, inability to write proper formal letters.
 1. Inability to make graceful formal expression of sympathy.
 1. Pronunciation bad.
 1. Inability to read aloud well.
 2. Inability to spell correctly.

VIII

15. Self-conscious.
15. Ill-at-ease among superiors or among strangers.
15. Excessively timid about speaking in public or to groups.
6. Ill-at-ease at formal affairs.
5. Backward in social groups.
4. Ill-at-ease in new situations.
4. Bashful when with the opposite sex.
3. Too sensitive.

IX

10. Lack of self-confidence.
4. Too easily discouraged, lack of will power.
5. Lack of initiative and leadership.
4. Lack of self-reliance.
2. Lack of originality.
2. Lack of strong personality.

X

10. Not a good mixer, do not make friends easily.
5. Dislike of meeting new people, indifference toward strangers or those outside own set.
4. Snobbish, narrow interest in things and people.
4. Inability to appreciate those with totally different viewpoint than my own.
2. Lack of patience with those for whom I do not care, difficult to be agreeable with them.
2. Inability to make self at home among any type of people.
1. Inability to enter into games and plays.

XI

13. Too much ego, selfish, lack sufficient consideration for the rights and feelings of others.
13. Hypercritical of others' faults.
4. Lack of sympathy.
4. Talk too hastily without considering how it will affect others, too frank and blunt.
3. Tactless because do not appreciate others' feelings, unable to put self in others' place.
3. Not courteous to others, not courteous to elders.
2. Too sarcastic.
2. Unappreciative, expect too much from others.
1. Tease too much.

338 FOUNDATIONS OF EDUCATIONAL SOCIOLOGY

1. Not enough interested in details of friends' activities.
1. Talk too much about self and own affairs.
2. Think too much about my personal appearance, or otherwise about self.
5. Lack tact.

XII

13. Boisterous laughter, lack well-controlled and modulated voice.
5. Lack of grace of manner, awkward.
8. Lack of poise and dignity.
5. Impatient.
4. Moody.
8. Intolerant of opposing views, see only one side of question.
4. Too hasty in drawing conclusions, do not think until too late.
3. Judge people too quickly.
3. Too determined, too imperative in tone.
3. Lack ability to see things in due proportion.
2. Cannot control temper.

XIII

17. Lack of wide range of information in history, geography, science, etc.
7. Insufficient knowledge or appreciation of foreign languages.
8. Narrow opportunity for travel, with consequently cramped experience.
3. Lack of knowledge of foreign institutions, customs, etc.
3. Inability to distinguish many trees, birds, and constellations.
3. Lack of knowledge of world affairs.
2. Lack of knowledge of scientific methods, or interest in them.
1. Lack of knowledge of politics.
1. Lack of knowledge of slang.

XIV

9. Inability to adapt self to new surroundings.
5. Lack of thoroughness, not sufficiently observant of details, vague in statement.
4. Do not think consistently, try to think too many things at once.
4. Unsystematic, unable to distribute time systematically, procrastinate.
2. Need better habits of neatness, carefulness, and accuracy.
2. Absentminded, unable to concentrate.
3. Cannot judge present institutions rightly because of lack of historical perspective.
5. Do not remember names and faces of persons introduced.
2. Inability to remember names of music, etc.

- 1. Do not notice details of dress.
- 1. Lack of organization of interests.
- 1. Lack of imagination.
- 1. Lack of knowledge of card games.

It seems to me that such a list as the above suggests much regarding the shifting of emphasis in cultural education. If, instead of reports from eighty college students, we could have them from a thousand; if, in addition, we could have several thousand reports from all sorts of classes of people; and if we could gather lists of experienced or observed deficiencies not only in respect to culture but in respect also to the other phases of social efficiency, they would go a very long way toward suggesting what should be set up as the objectives of education. It is possible that they would not give us a complete analysis of social efficiency; it is conceivable that there might be essentials for effective living in respect to which not one individual in many thousands would be sufficiently defective to attract attention; but to find these missing elements would be anyway of only academic interest. All the essentials of efficiency about which we would need to concern ourselves should be suggested to us by a sufficiently comprehensive and intelligent survey of defects. Besides, such inquiry would seem to throw some light on the question of relative importance of the items, and on the extent to which they need to be made the objectives of *school*, rather than *general*, education.

Limitations of Job Analysis and Method of Defects.—In both the systematic job-analysis method and the method of defects, our attention is centered on the job. In the one case we are asking what tasks the job sets and, in the other, which of its elements go inadequately met. But there are some limitations to both of those methods. The former method is fairly easy to apply in some fields but very difficult in others, on account of the intangible nature of the job in these latter. The second method obviously implies the presence of standards. One can judge that a situation is met inadequately only by

contrast with his ideal of how it might be met. If we could somehow get isolated, on a scientific basis, these standards themselves, we would have in them criteria of efficiency more valuable in many respects than those which either of the above methods could give us. These standards may be discovered by studying, not the job itself, but *people who are successful or unsuccessful* in meeting it. For approaching the question from this second angle there are available some methods that have long been the chief reliance of the physical and the biological sciences, and that have become highly standardized. We shall set forth below four of these methods and show how they may be applied in isolating the objectives of education.

III. THE METHOD OF AGREEMENT

Meaning of Method of Agreement.—When Sir David Brewster wished to ascertain whether the color of mother-of-pearl is due to the form of the surface of a body rather than to its substance, he took impressions from mother-of-pearl in wax, balsam, fusible metal, lead, gum arabic, isinglass, etc. In all of these cases the form of the surface was kept the same but the substance widely varied. When to all of these varied cases he found the iridescent color common, he concluded that the form and not the substance is the cause of the color. In like manner the agriculturalist studies the value of a certain fertilizer by applying it to many different crops and different conditions and observing what results are common to all the cases; the physician assures himself of the potency of antitoxin by noting the extent to which subjects treated with it agree in resisting disease, or the anthropologist satisfies himself as to what traits are fundamental to primitive society by comparing many tribes and studying to what extent the traits in question are found in all of these tribes. This is the Method of Agreement. It consists in bringing together many varied, yet typical, specimens of the thing studied, comparing these, and isolating essentials on the basis of agreement found in the specimens.

Its Use in Educational Sociology.—The use of this method in sociology does not differ fundamentally from its use in the other sciences. The writer has elsewhere proposed¹ this method for studying the traits essential to Christianity, and hence the objectives of Christian religious education. It was there suggested that a thousand persons of analytic ability take each some man or woman whom he regards as one of the "best Christians," write down all the traits (ideals, practices, beliefs, etc.) he finds in this one that might be conceived to have any connection with his Christianity, and report these to a central committee. Such committee should list the items given in the reports and isolate those traits that are mentioned by many of the observers, the number of times each trait is mentioned giving some evidence of the relative importance of the traits. Obviously a similar method could reveal for us the essentials of citizenship, of culture, of domestic efficiency, of executive ability, and of many other kinds of efficiency for which we want to find the objectives of purposive training. For the traits found in common among many efficient men may be just as legitimately assumed to be the "causes" of their efficiency, hence the traits to be trained into the rising generation, as the elements found in common among many groups of physical phenomena may be taken to be the cause of the constant effect.

Caution.—In using this method in the early stages of this type of research the writer succumbed to the natural temptation to shorten the process by having each field judge draw up a list of ten individuals of his intimate acquaintance and report the traits found in common among the ten. But this procedure has the defect, mentioned above as fatal, of placing upon the field judge the necessity for generalizing. We must hold our field men to reporting facts, not to judging or generalizing about those facts, at least in the present stage of their training. The generalizing must be done by trained experts constituting a central committee. There is no objection

¹ December number of the *Pedagogical Seminary*, 1921.

to an observer's reporting on more than one individual, provided he knows more than one intimately and will give the time and pains necessary for several careful reports, but he should report on each as a separate project, not try to lump the several together into a composite, idealized individual. And reports must always be on what individuals have actually been observed, or otherwise positively known, to be, not what the reporter thinks they might or ought to be.

Illustration.—By way of illustrating this method, the writer has had college seniors describe particular persons whom they regarded as highly cultured. The traits mentioned most frequently in one hundred such descriptions are given below, together with the number of times each was mentioned. To complete the analysis, from ten to a hundred times as many cases must be described and the whole list of observed traits displayed.

CHARACTERISTICS OF ONE HUNDRED CULTURED PERSONS

73. Good conversationalist—able to talk on wide range of subjects, steer conversation skilfully, adapt it to interests of others, good listener.
54. Knows music, appreciates good music.
46. Knows literature, appreciates good literature.
43. Possessed of poise, dignity, self-control, does not lose temper.
43. Knows art, appreciates fine art.
41. Sympathetic, charitable, understanding, ready to help anyone, not over-critical.
29. Well informed on wide range of subjects, widely read, traveled.
32. Neat, clean, well but not ostentatiously dressed.
26. Able to adapt self to all sorts of situations.
25. Thoughtful for others, considerate of their feelings, able to make them feel at ease.
24. Acquainted with current events, present day personages, etc.
23. Pleasing personality, gracious manner.
22. Unselfish, interested in the success of other people, interested in others' interests.
21. Broadminded, progressive, open to new points of view.
20. Polite, good manners.

20. Uses good English, avoids slang, articulates well.
19. Sociable, good mixer, friendly to all.
19. Knows the forms of etiquette and observes them.
17. Kind, gentle to everyone.
16. Interested in civic or other community or world affairs.
15. Religious, reverent.
14. Well-modulated voice.
14. Courteous to all.
14. Good taste in dress, color schemes, etc.
14. Appreciates games and sports.
14. Cosmopolitan, democratic, interesting to all types of people, respectful to all.
14. Knows and appreciates nature.
13. Modest, unobtrusive.
12. Sincere, frank.
12. Always at ease in society.
10. Cheerful, optimistic.
10. Courageous where principle is involved.
9. Has command of wide range of words.
9. Possessed of a sense of humor.
7. Attractive personal appearance.
7. Able to speak well to groups.
6. Appreciates science, has scientific spirit.
6. Enjoys his work, reverences any work.
6. Refined.
6. Respectful to elders.
6. Quiet, reserved.
6. Has high ideals and good morals.
5. Remembers names and faces.
5. Shows executive ability, business-like manner,
5. Characterized by initiative, leadership, originality.
4. Does not jump at conclusions.
3. Vivacious, enthusiastic.
3. Hospitable.
3. Enjoys any kind of music.
3. Generous.

IV. THE JOINT METHOD OF AGREEMENT AND DIFFERENCE

Meaning of the Method.—This is the corrective and supplement of the Method of Agreement. No careful scientist would trust absolutely an inference derived merely from the concomitance of a supposed cause and a supposed effect,

especially with a limited number of cases. Unless the number of cases is very large and very well selected it is possible for two phenomena to be found together in all of them without there being any real causal connection between them. To guard against this possibility the investigator places over against a set of phenomena agreeing in that they contain the supposed cause another set having in common only their lack of this cause. If he finds the effect always present in the first case and always absent in the second, he infers that his supposed cause is the real one. As an example of the use of this method in biology, I quote from Hibben's *Logic* the following account of Sir John Lubbock's experiment concerning the sense of smell in insects:

"He took a large ant and tethered her on a board by a thread. When she was quite still he brought a tuning fork in close proximity to her antennæ, but she was not disturbed in the least. He then approached the feather of a pen very quietly so as to touch first one and then the other of the antennæ, which, however, did not move. He then dipped the pen in the essence of musk and did the same; the antenna was slowly retracted and drawn quite back. He then repeated the same with the other antenna, with like result. Lubbock then repeated the experiment with a number of different ants, and using various substances. The results in all cases were the same, and the inference was naturally drawn that the antennæ possessed the sense of smell. In these experiments various substances were taken having nothing in common save the odor of musk that had been placed upon them."¹

Use in Educational Sociology.—In using this method to isolate the elements that constitute culture, one would draw up a list of, say, ten cultured persons whom he knew well and contrast them with a list of ten persons commonly felt to be lacking in culture. He would then note the traits that are possessed in common by the members of the first group in rather marked degree and that tend to be absent from, or

¹ Hibben, *Logic: Deductive and Inductive*, pp. 250-1.

possessed in smaller degree by, the members of the second group. These would be indicated as essentials of culture. The findings of one judge should be supplemented by those of a hundred or more other judges, using the same methods but with different groups, and their individual reports telescoped into a composite one as in the Method of Agreement. The application to health efficiency, citizenship, executive ability, etc., would be the same.

Weaknesses.—This contrast of positive with negative cases affords a valuable check. The Joint Method of Agreement and Difference is nearly an ideal method in science and is used more than any other. In education too, particularly in the study of methods by parallel group experimentation, it has been extensively employed. The writer hoped much from it in the study of educational objectives, tried it out extensively, and found that it did not work. It is now plain that the reason it would not work was that it places the necessity for generalizing upon the field judge. If he is conscientious in his effort to follow instructions, he finds the job too difficult and does not report at all. If he is less conscientious, he reports but succumbs to the temptation to put down what his sense of fitness makes him feel ought to be true rather than what observation shows him actually to be true with his list of individuals. In either case results are abortive. And this necessity for placing the obligation of generalizing upon the observer cannot be avoided in using this method. There may come a time when we shall have field observers in sufficient quantity who are well enough trained to do the generalizing, but for the present at least the Joint Method does not appear to the writer to be feasible in this sociological research.

V. THE METHOD OF CONCOMITANT VARIATION

Meaning of the Method.—If two phenomena vary together, the one increasing while the other increases and decreasing while the other decreases or vice versa, there may

be assumed some causal connection between them. Since the mercury column in the thermometer rises when the medium in which it is immersed is heated and falls when the medium is cooled, we know that the heat is the cause of the rise. From the fact that electrical disturbances occur on the earth simultaneously with the appearance of spots on the sun, the former varying in intensity as the latter vary, physicists assume a causal connection between them. This is the method known as Concomitant Variation.

Use in Educational Sociology.—This method might be applied to finding the “causes” of cultural, of civic, or other forms of efficiency (that is, the essential elements that make for each) by ranking cultured men, or good citizens, or other types in the order of their general merit in respect to the matter in question and then studying what traits tend to increase in prominence as you ascend the scale and decrease as you descend. This method has several difficulties. If one depends upon the field judges to report what traits increase as one goes up the ranks, the necessity for generalizing is placed upon these observers. It would, however, be possible to avoid this by having each individual described singly, together with information as to where in the ranks he belongs. Then the central committee could study the various reports to see what are the traits appearing more frequently, or more prominently, among those high up than among those low in the scale. Also it should prove possible to measure by objective tests a considerable number of traits, as general information, ability to appreciate poetry, knowledge of current events, acquaintance with the rules of etiquette, etc., and correlate achievements in these tests with standing in the estimated scale of general efficiency. Another difficulty lies in the fact that one’s efficiency is not homogeneous. One is cultured, or a good citizen or a moral man “in spots,” not uniformly in all respects; so that one who stood high in general cultural efficiency might not show certain traits that really make for culture; and the same is true of citizenship and other forms

of efficiency. This would make the method more difficult to use in this field than in the physical and biological sciences. However this would be largely offset by taking large and heterogeneous groups. In them the traits essential to culture, citizenship, etc., should show a steady and pretty regular increase as we go up the scale of general efficiency in these respects. The writer never tried out this method and does not know how well it could be made to work in practice.

Professor Snedden's Proposal.—Professor Snedden has suggested a procedure that amounts to only a slight modification of this method.

“Let us take at random one hundred men of from thirty to forty years of age. Let us rank these hundred men in a series from lowest to highest according to the consensus of opinion of several competent judges directed to base their decisions on the extent to which each individual of the hundred is a cultivated man and a good citizen, using, as far as practicable, what the world holds as approved qualities of these descriptions. Having our one hundred men ranked in order, let us call the twenty highest, A grade men, the next thirty, B grade men, the next thirty, C grade men, and the lowest twenty, D grade men.

“The B grade men, obviously, are all above the average, as judged by the standards set up, but they are not exceptional. Let us now ascertain what these B grade men possess, exhibit, or express in action, of cultural qualities, on the one hand, and of civic qualities, on the other (the words *cultural* and *civic* being each taken in somewhat restricted and mutually exclusive sense). . . . Let us find what is common in the knowledge or appreciation they now possess. What portions of this knowledge or appreciation are still vitally significant, and what are in a true sense simply intellectual junk. . . . For example, all of these men know something about the history of the United States prior to 1790—little or much. What are the elements in the knowledge common to many of them? What are the common cultural interests

and attitudes possessed by them which are to be ascribed to this knowledge. . . ."¹

This is obviously a combination of the method of concomitant variation and that of agreement, as, indeed, any use of the former method is likely to be in sociological research. But why should Professor Snedden wish to study only the B class? It would reveal a great deal more about the direction in which cultural and civic efficiency lie to know how the A class differ from the B class, and the B class from the C, and the C class from the D. If we could study all the classes and see what traits increase as we move from D class toward A class, we would have a most excellent index of what are the specific elements that make for efficiency within these two realms.

VI. THE METHOD OF HYPOTHESES

Meaning of the Method.—When John Stuart Mill described the three methods we have discussed above (together with a fourth and a fifth one) he failed to include a method that now plays even a larger rôle in scientific investigation than any of his five—namely, the Method of Hypotheses. Practically every inquiry in biological and physical science, as in most other fields of human interest, is dominated by hypotheses. The scientist first assumes that a certain thing *may* be true. He then constructs a situation in which certain consequences would have to follow if his guess regarding the cause were a true one, and watches results. If he finds these things happen according to expectation, and his hypothesis works in every situation in which he puts it to test, he considers it to be verified and accepts it as true. If not, he gives it up and formulates a new one for similar refutation or verification; but without a definite hypothesis to work upon he cannot proceed at all. Even in the use of the “experimental methods”

¹ *Sociological Determination of Educational Objectives*, pages 218-19. Published by J. B. Lippincott Company.

described above the experimenter does not wait for conclusions to be thrust upon him while passively looking on, but he seeks his generalizations through the assistance of hypotheses.

Use in Educational Sociology.—We may use the same method in our type of research. A very superficial job analysis, or a casual observation of a defect, or a bit of personal experience, or some other hint, may suggest, for example, that ability to keep up an interesting conversation is an element of culture. One may then say to himself: "I have that ability to some extent; to the extent to which I have it do I find that it adds to my culture? To some extent I lack it; to that extent do I find that I am culturally handicapped? I know such and such persons who possess the trait; is it a factor in increasing their culture?" Same with other specific elements of culture, of citizenship, of vocational efficiency, etc. In addition to our personal verification of these surmises we may get others to test them out. We may submit them to a large number of individuals selected by whatever methods will best insure a searching and impartial test, in the same spirit in which the general scientist submits his hypotheses to many, and to critical, tests. Or, instead of depending upon mere chance or personal observation to suggest to us our hypotheses, we may seek them systematically by one or another, or by all combined, of the other five methods discussed above. Indeed all that the other methods really can do, anyway, is to suggest probabilities, not to prove them as actualities. Before taking their results as conclusive we need to put them to further tests as hypotheses, finally accepting or rejecting them, or modifying them, according to the results of these tests. It should prove feasible to apply scientific (quantitative) measurements in the confirmation or refutation of these hypotheses.

Thus our whole procedure will culminate in this method of hypotheses; the others only aid us in finding the hypotheses. We are after a complete analysis of social efficiency. We

wish to find all the elements that enter into it. To do so we shall need first somehow to find an hypothesis directing us to each (for one finds nothing except as he first looks for it), together, of course, with many other hypotheses which will prove to be false leads. Our effort to analyze the job systematically, to find the correlatives of defects, to discover what traits many good men have in common, or to see in what specific ways better men rise above worse, are only systematic ways of uncovering leads, but they are so systematic and comprehensive that they should suggest to us most of the hypotheses we need. But if we can get any hypotheses from any additional source—from our individual experience, from logical analysis, from our reading, or in any other way—we should by all means include them for the try-out, not spurn them because they happen to be outside of the particular machinery we are using. But we must not consider these suggestions as necessarily true because they have been suggested from some source or other, or because they seem logical, but must freely abandon or accept each of them whenever the test of experience, scientifically employed, proves it invalid or valid. In other words we must be very openminded in eliminating those that investigation does not verify as true.

Illustrations of the Method.—Professor Jones followed this procedure in an investigation he made on the objectives of professional education for class room teachers. He and his seminar first collected, by keeping diaries of work actually done by themselves, a tentative list of the jobs a teacher is called upon to perform. They then sent this list out to a large number of typical teachers, asking them to indicate how often they had been called upon to perform each of the acts in the list and under what conditions. They also asked the teachers to note any additional activities of a similar sort in which they were called upon to participate. It was the intention to discover, by this elimination of false hypotheses and confirmation and addition of true ones, what

specific things teachers are being called upon to do and hence what particular kinds of preparation they need for their work.

The writer has tried out pretty fully this matter of submitting to competent persons lists of elements supposedly valuable for social efficiency, particularly in the areas of culture and citizenship. Correspondents were asked, on the basis of consideration of contrasted groups of people, to indicate whether they find the claim true or false or doubtful. They were also urged to supply the missing items. A considerable number of these were returned, by some of the ablest schoolmen in the country, but they were rather disappointing. Very few new items were added, and nearly all of the items submitted by the writer were approved. I am now convinced that that particular procedure was defective for at least two reasons: (1) This is not a good way for finding new hypotheses. The study of the qualities of particular individuals, or of defects of individuals, is a better way; (2) it was a mistake to allow my correspondents to think about "people." That doubtless brought it about that they did not think in objective terms at all, or at least not in terms of individuals selected in such a way as to insure that they would be thoroughly representative, but reacted rather on the items in the light of how plausible they sounded. In submitting hypotheses for test we must not allow our correspondents to have "people" in mind, for that object is too abstract and places on the field men the necessity for generalizing. We must insist rather that they think of *single individuals*. Ordinarily they should think of the experience of but one individual, and that individual should be, in each one's case, himself. But for certain purposes we may allow them to think of other individuals, though only of one at a time and with his name on paper, or held firmly in mind, so as to prevent the acceptance or rejection of hypotheses on any other basis than their truth or falsity in particular cases.

REFERENCES FOR FURTHER READING

- ALDERMAN**, "What an Iowa Layman Should know about Courts and Law," *School Review*, Volume 30, pages 360-4.
(Study of the causes that bring people into court, as a means of finding what ought to be taught in civics.)
- ALLEN**, C. R., *The Instructor; The Man and the Job*, Part II.
(Account of Job Analysis.)
- BOBBITT**, J. FRANKLIN, "Objectives of Secondary Education," *School Review*, Volume 28, pages 738-749.
(Discussion of importance of analyzing objectives, illustrated by an analysis of the objectives of health education.)
- , *Curriculum Construction in Los Angeles*, Supplementary Monograph to the *School Review*, number 20.
(The most elaborate analysis of objectives of high school education that has yet been published. Now out of print.)
- , *How to Make a Curriculum*.
(Extended form of same material as monograph above.)
- BUELLESFIELD**, H., "Causes of Failures among Teachers," *Educational Administration and Supervision*, Volume 1, pages 439-52.
(A statistical study of causes of failure based on reports from superintendents.)
- CHARTERS**, W. W., *Curriculum Construction*.
(The most recent and the most scientific treatment of the problem of curriculum construction. Gives a survey of the principal scientific studies in the field.)
- CLEMENT**, J. A., *Curriculum Making in Secondary Schools*.
(Starts with discussion of objectives as criteria for curriculum building. Works the principle out partly on basis of scientific studies, partly on empirical basis.)
- CREIGHTON**, J. E., *Introductory Logic*, chapters 16-19.
(Discussion of Mill's Experimental Methods and the use of Hypotheses. Another text in Logic will do as well.)
- HARAP**, "Objectives of Community Civics," *School and Society*, Volume XII, pages 634-8.
(One man analysis.)
- MEAD**, A. R., "General Plan for a Course in Economics," *School Review*, Volume XXX, pages 294-99.
(Recommendations for course in Economics in high school, based on empirical analysis of needs.)
- NATIONAL SOCIETY FOR THE STUDY OF EDUCATION**, *Fourteenth, Sixteenth, and Eighteenth Year Books*, Part I.
(Reports on studies of Minimum Essentials in the course of study.)

NATIONAL SOCIETY FOR THE PROMOTION OF INDUSTRIAL EDUCATION,
Report of the Minneapolis Survey for Vocational Education.

(Recommendations based on job analyses of vocations.)

PETERS, C. C., "Notes on Methods of Isolating Scientifically the Objectives of Religious Education," *Pedagogical Seminary*, Volume XXVIII, pages 369-81.

(Discussion of Method of Agreement applied to religious education.)

Proceedings of the High School Conference, University of Illinois, University of Illinois Bulletin, Volume XIX, number 21, pages 16-32.

(Report of committee study of objectives.)

TEAD AND METCALF, *Personnel Administration.*

(Section VI contains good discussion of job analysis and other aspects of scientific research as applied to personnel administration in industrial work.)

U. S. BUREAU OF EDUCATION, Bulletin number 35, 1918.

(Report of the N. E. A. committee on Cardinal Principles of Secondary Education.)

WASHBURN, CARLETON W., "Basic Facts Needed in History and Geography," chapter XIII, *The Twenty-Second Year Book of the National Society for the Study of Education.*

(A statistical study of what facts are needed as a basis for intelligent reading in current literature.)

WILSON, G. M., *The Social and Business Uses of Arithmetic.*

(A monograph exemplifying the survey method of finding educational needs.)

(See also references at the end of next chapter.)

CHAPTER XVIII

DEFENSE OF THE SURVEY METHOD FOR DERIVING NORMS

Criticism of Deriving Norms from Present Attainments.—In our preceding chapter we proposed isolating objectives through a study of social needs and activities as they appear at present. To this proposal many persons take vigorous exception. They protest that any effort to get at norms by studying men as they are is proceeding in a circle. It will inevitably, it is claimed, fix upon society its *status quo*. To expect civilization to make any progress in this way would be to assume that society could lift itself by its own bootstraps. It is the business of Educational Sociology, they hold, to blueprint the future by portraying institutions as they *ought* to be, not as they now are found anywhere in the world.

Necessity for Self-Levitation.—But it is not, after all, so absurd for society to attempt to raise itself by its own bootstraps; there is, indeed, no other way by which it can be raised. All the progress that has ever taken place has come about through the anomaly of self-levitation. It is true that ideas have sometimes been imported from without in the case of particular groups, so that these groups have not been obliged to raise themselves, but nothing could come to *the whole social order* from without that social order. It is also true that prophets sometimes bring new visions to their fellows, but these, too, grow out of that developing life upon which the genius is speculating. He is only more foresighted and delicate than ordinary men in sensing and interpreting the new values as they come steadily toward florescence in the course of human history. No inventor is ever completely independent of the developments of the immediate past and the

present, nor is any prophet. If he were, his vision would have no meaning even to himself, much less to his fellows.¹

The Pace-Setters in Society's Self-Levitation.—In relation to upward-creeping civilization there may be distinguished, though with no fixed boundaries, three classes of people. First, there is a rather small class of men and women of very marked individuality, originality, and initiative. These are the "radicals." They are the men and women who are willing to experiment with anything new. They are the "sports" in the process of evolution. And in all forms of evolution the hope of progress lies in the "sports," but the "mortality" among them is tremendously high; for their aberrations are, on the laws of probability plus a little direction by intelligence, more likely to be in the wrong direction than in the right one. Society cannot afford to follow them at once, nor will it do so until they have demonstrated their "fitness." But next to these is a fair-sized group of persons who are the first heirs of those achievements of the iconoclasts who venture out in the right direction. These are the men and women adapted to the situation. They are the "fit" whom nature will sanction and select. Below these is a very large group adjusted to an earlier "environment" but getting into a more and more strained relation with the changed, present one. In the long run the forces of social and biological selection, the former ordinarily working before the latter needs to, will eliminate them and the accepted creeds will have risen to the level of the group above—which group will now itself have inadvertently become the laggard one.

Need for Telesis in Terms of the Findings of the Pace-Setters.—The forces of social evolution alone will not get actual practice raised much above the average of this third class, however. Its means of prodding are too clumsy and too slow in operation. But the forces of human telesis can be made to operate to drive practice far ahead of the normal standards of the mass. Purposive education is the means by which this

¹ See chapter on "Progress and the Relation of Education to it," *supra*.

must be accomplished. And the safest way in which to find out in what direction to drive in order to accomplish this, is to make a systematic study of the characteristics of the most fit ("the best") in order to ascertain in just what their fitness consists. In other words, we must study the second of the two classes mentioned above in comparison and contrast with the third. The standards thus derived will be ahead of those of the masses, for it will not be the average of all that we are getting but the *direction* in which the *best* are deviating from this average. We can then purposively exert pressure upon the laggards to bring them nearer to these standards than nature alone would do. Not only will the standards thus tried out and proved by "the best" be above those that are current among the masses, and thus make toward progress, but they will be as far beyond as society—particularly such democratically organized society as we now have—will approve and support. Such sociologically defined standards could not, of course, be permanent, but would need to be abandoned for similarly determined higher ones as rapidly as the masses largely achieved them while the few "best" forged on ahead.¹

Sociological Derivation of Norms Involves Making Articulate What is Vaguely Felt.—But "the best"! Who are "the best," and how can we know them as such? Is not the very choice of them moving in a circle? If we can recognize "the best," it must be because we already have defined for ourselves the very standards for which we are seeking. And that is, indeed, true. We have defined them, but not articulately. What we are seeking in a sociological definition is merely to make articulate what the many, who use the definition, already vaguely feel and approve. If they did not already feel its truth, you may depend upon it that they would not accept our definition when proposed to them. As a matter of fact, however, intuition is more delicate and incisive than ratiocination. I am not using intuition here in any metaphys-

¹ See Mackenzie, *Manual of Ethics*, pages 282-3.

ical or mystical sense, but merely to denote direct experience not yet organized into explicit judgments nor formulated into language. We can feel out much truth for which we could not yet give our reasons and which we could not even formally articulate. And what the human traits are, that are beyond the general level of attainment and that yet are the "fit" ones, is among the things that can be thus sensed before they can be analytically expressed. It is this sense for "merit" that must be counted upon to enable us to pick out the "good citizen," "the cultured person," the "moral man," from the study of which we must get the detailed content of our definitions of good citizenship, culture, and morality. Any sociological definition of goals for progress must rest upon that supposition.

Blueprinting the Future as Basis of Prophetic Visions.—There is possible, to be sure, a method of defining standards that is more distinctly teleological than this sociological one—that is the philosophical method. We might look to those bold iconoclasts of whom we spoke a moment ago, for visions—visions projecting far into the future—which visions would set for us goals for our aspirations. These would be the product of systematic, constructive thinking, and would embody those lofty flights of intellection of which genius is capable. On the whole, goals philosophically determined by such prophets would be higher and nobler than those could be that are sociologically derived. It was this class of philosopher-statesmen to whom Plato looked for the government of his ideal state. Personally, I should be willing enough to agree to this *a priori* method of setting the world's educational objectives. Indeed, my own temperament strongly urges such idealistic procedure. But I should insist upon one condition, namely, that I might be the particular iconoclast to designate them. I would not be willing to trust it to others, for they would name the wrong ones. And, of course, the others would think the same way about me. We have always, in fact, among the "prophets"—those

who project plans beyond the level tried out by experience—a tremendous amount of variation. The personal equation runs riot among them. Each has his own theory. Collectively they can criticise and condemn effectively enough, but they cannot collectively construct. Under such circumstances it would not be possible to make, on the basis of their visions, prescriptive programs. Society has learned by many bitter experiences—including some in education—to await such empirical test of the validity of their visions as is made by the second of our evolutionary groups named above, and to take over from these the elements of demonstrated validity, rather than hastily to accept the program of any of her “radicals.”

Common Practice of Deriving Norms from Study of Individuals.—A sociological determination of the objectives of education, as contrasted with the philosophical one, is not really as new a method as it may sound. It has been used very generally and the reader has certainly employed it repeatedly. If one is ambitious to become a public speaker, he is almost sure to study successful speakers and to try thus to find out what things are characteristic of their work. When he finds common to many speakers certain characteristics—as concreteness in their presentations, or a sympathetic tone of voice—he tries to train himself into these. Similarly the would-be politician is likely to study the methods of actual successful politicians; the evangelist, to study successful men in this calling; the novice in society, to follow the lead of those known to be masters of etiquette; and it is now being urged that we have prospective teachers seek their training at least partly through studying the procedure of highly successful pedagogues instead of through abstract theory. Indeed even most so-called theory itself is inductive in character. It is suggested not by *a priori* principles but by the workings of practice. The best theory of public speaking is not based upon a metaphysical analysis of the nature of man and his emotions, but derives its laws from the reactions got by many

actual practitioners from one type of procedure or another; and the same thing is true of practically all other theories dealing with social phenomena. When, therefore, we propose to study the objectives of education by a sociological method, we are not proposing anything particularly new but only that we do systematically what we have long done loosely.

Show how methods of teaching could be studied through concrete "cases." Same with oratory, practical politics, and school administration. Does the case of culture or of citizenship differ fundamentally from these? If so, why?

Relative Importance of Objectives.—As soon as one embarks upon an effort to isolate the objectives of education he is struck with the fact that not all of them are of equal importance. Some are real but of negligible significance; others are of tremendous significance. A list that simply enumerates the elements without making any distinctions between them on the basis of relative importance seems wholly inadequate if not misleading. One is, therefore, tempted to try, by consensus of judgment or by other means, to get weightings for his elements. It has been suggested several times that we study traits essential to various types of efficiency by getting many men's estimates of their importance, on some convenient scale, and then computing medians from these estimates. At least one widely quoted study, that of Upton and Chassell on the qualities of citizenship among school children, was made on this basis. All of the writer's earlier attempts in the field here in question were made in that way. But any one who tries that out will get some startling surprises. The discrepancy among the estimates is so very great as to make them largely worthless. The writer has sought an explanation for these strange discrepancies and believes it is to be found in the fact that *Relative Importance*, as applied to this field, is not a simple concept but a very complex one.

Factors in Relative Importance.—Relative importance is governed by at least four principles: (1) *The Principle of Inherent Importance.* Intrinsically, an interest in civic affairs is more important to citizenship than technical fitness to hold petty office; a knowledge of how to select foods, than the habit of keeping the toe-nails trimmed; the ideal of practicing such inhibitions as a reasonable consideration of the rights of one's mate demands, than a knowledge of how to make dresses for the baby. An index of the relative importance due to characteristics inherent in the element would probably be furnished by the extent to which efficiency increases with given increments of increase in the "cause" (the element in question). If slight increase in the element produces great change in the degree of general efficiency, the item is thereby indicated as of great importance. If large increments in the element produce but small changes in general efficiency, the item is of little importance. Thus, if civic efficiency increases rapidly, as a rule, with additions to the individual's interest in civic affairs, then interest in civic affairs is of great relative importance. If it increases but slowly as one's knowledge of the statute law increases, then a knowledge of statute laws is of little relative importance, other things, of course, being equal. Putting this in the shape of a formula, letting I represent the relative importance and K the degree of inherent importance as measured in the above-mentioned way,

$$I \propto K$$

2. *The Law of Diminishing Returns.*—The relative importance of any element depends also upon how much has already been done with it. The first increments of knowledge of the statute law are relatively much more important (supposing the increments are chosen in the order of ascending value, as would normally be the case) than the later increments. A knowledge of enough words to make one's self understood is culturally more important than the acquisition of any

other equal number of words further along in one's mastery of the vernacular. This is only a new application of a very familiar law from Economics. Letting A represent the extent to which training in any "virtue" has already been carried,

$$I \propto \frac{1}{A}$$

3. *The Principle of Individuality.*—The relative importance also depends upon the character of the situation. Certain elements of citizenship are certainly not of equal importance in New York City and on the plains of Nebraska. Certain qualities that make for health are clearly of less importance to a person with one hereditary equipment than they are to persons with a different heredity. Certain cultural abilities that are of supreme value to some men are of only slight value to others. So relative importance is dependent, in part, upon the individuality of the situation. Letting S stand for the extent to which the peculiar local conditions demand the trait in question,

$$I \propto S$$

4. *The Law of Optimum Distribution of Increments of Purchase.*—Relative importance is affected by the status of any element *as compared with that of other elements*. If training to enjoy music has been already carried to a considerable extent while training to enjoy nature has been neglected, the importance of further increments of the former is lessened in comparison with increments of the latter. In general the value of any item is determined in the light of the extent to which other items have been driven abreast of it or allowed to lag behind. This is again a law well known to students of Economics.¹ I have named it the *Law of Optimum Distribution of Increments of Purchase*. Letting D symbolize the extent

¹ See, for instance, Bullock, *Introduction to the Study of Economics*, pages 91-95.

to which any element has already been carried *in comparison with others*,

$$I \propto \frac{I}{D}$$

Combining all of the above equations, we get as our law for the operation of the principle of relative importance,

$$I \propto \frac{KS}{DA}$$

Relative importance is therefore dependent upon four variables. Only one of these (K) goes always with the term itself. The others are dependent upon the local conditions, or on the particular type group of individuals. Except, therefore, for the first aspect alone, relative importance is purely a local matter; and the large amount of difference in the values set by several judges, when they estimate relative importance, is no more than ought to be expected. Their evaluations turn so largely upon the other three phases that they must necessarily differ. Obviously, therefore, consensus of judgments on relative importance, except as they refer to particular situations, must necessarily be largely meaningless and abortive. This is not to say that we need not bother ourselves about the principle of relative importance. On the contrary, it is a principle of supreme significance. I have only meant to say that it is, for the most part, a matter to be settled locally, not one that can be taken care of in an analysis of nation-wide application. But when locally settled, it ought to be settled on a survey basis, not on an individual-opinion basis.

Value of a "General" Analysis of Efficiency.—The procedures discussed above are intended to eventuate in a practically complete list of the fitnesses required in common by all normal members of a state or national group, though not to indicate which ones are of much, and which ones are of little, importance for any particular group. Such list should

be of the utmost value to the educational program maker. It is not proposed at all that it be made the basis of a state-wide prescribed course of study. That would be a tragedy. Nor is it proposed that each of its elements should be paralleled by some formal curricular effort in a locally made program. Many of them do not require school efforts for their realization. But it should be valuable in the following ways:

1. *It would call vigorously to the attention of local program makers the necessity of centering a curriculum about specific objectives, and would suggest methods for the study of such objectives.*

2. *It would immensely simplify the task of the local program maker in drawing up a scientific course of study. It would lay before him an extensive "map" of possible educational objectives. With this before him he would need only:*

(a) To check it over and determine which of these elements would be sufficiently realized in his community through by-education, and which of them would require the direct action of the school. With this list before him he would be very much less likely to miss vital elements than without it.

(b) To add to the general list the special education requirements of his particular community or group. Because of their exceptional character these unique items would be much more easily isolated than the more familiar general ones. Besides they would be much fewer.

(c) To search for subject-matter and methods that, given the environment background in his local situation, would enable him best to attain the ends that he has isolated as needing in his community the purposive action of the school.

3. *It would be immensely more economical of time and energy to have the general analysis made once for all and the results shared rather than to have the process repeated in each community. The technique required for a truly scientific analysis is so elaborate that it is practically certain that local studies would not be sufficiently thorough. But if the investigation were made once for all (that is, as far as one cross*

section of time is concerned, but understanding that it would need to be revised from time to time), it could be made with enough expertness and elaborateness to give it scientific validity. We would have thus, a general (perhaps nationwide) research to reveal the central group of fitnesses necessary for effective living, and supplementary ones in each school unit to add the special fitnesses required by local conditions as well as to determine their relative claims upon school time.

Objectives of General Versus School Education.—All of the previous discussions have had to do with isolating the objectives of *general* education. The objectives of school education will be only a part of these. There are many social agencies besides the school contributing to the education of the individual, and the school need not duplicate the work of these. As pointed out in earlier chapters the school should do only what the other agencies leave undone. Its function is distinctly a residual one. After we have carried out the program outlined above we shall, therefore, have taken only one of the needed steps. The second step must be to ascertain, also by scientific methods, which of the objectives of all education belong to the school as its share in the process. The next chapter will be devoted to discussing methods by which this can be done.

PROBLEMS FOR RESEARCH

The task of isolating educational objectives, and of measuring their relative importance, will suggest to the student innumerable specific researches. But if simpler, preparatory researches are desired for testing out technique, they could be found in studies of good speakers, politicians, or teachers to determine what are the specific traits that make them good. To what extent could education for these vocations be headed toward the specific abilities thus discovered as objectives?

REFERENCES FOR FURTHER READING

COOLEY, C. H., *Social Process*, chapter 34.

(Discussion of the tentative character of progress.)

CHARTERS, W. W., *Curriculum Construction*, chapter 7.

(Chapter on methods of determining relative importance, surveying many studies.)

MACKENZIE, J. S., *Manual of Ethics*, pages 282-285.

(Norms for progress derived from a study of the process.)

UPTON AND CHASSELL, "A Scale for Measuring Habits of Citizenship," *Teachers College Record*, Volume 20, pages 36-65.

(Example of determination of relative importance by consensus of judgment.)

TEAD AND METCALF, *Personnel Administration*.

WILSON, G. M., *The Social and Business Uses of Arithmetic*.

CHAPTER XIX

METHODS OF FINDING THE RESIDUAL FUNCTIONS OF THE SCHOOL

The School's Function Residual.—When we shall have isolated the objectives of education, we shall have taken only one step toward determining scientifically what should be the program of the school. For, as we have already noticed, school education is only a small part of the total process of education. It would be a great mistake to conclude that, because social efficiency demands that individuals possess certain abilities, these should necessarily each be made one of the objectives of formal education. Many of the needs may be adequately met through by-education from inevitable social contacts. It would be a waste of energy for the school to blindly duplicate these. If there were a dearth of material to be taught, the school might well be pardoned for jealously guarding its right to teach everything; but this is very far from the case. A great deal more education is needed for optimum preparation for life than can at best be given by all agencies combined. Whatever energy the school can save at one point it can expend at another. The school should therefore be grateful for any ability to express ideas well in the vernacular, any morality, or æsthetic tastes, or mastery of etiquette, or wholesome political ideals, or economic ideas the individual can catch from the parents or get from other sources. Starting with these as a foundation, it should supplement them wherever necessary to round them out toward perfection. In other words, since the function of the school is a distinctly residual one, it should neither blindly duplicate what other agencies will do nor leave undone anything essential that they will not do. The problem of this chapter

is to inquire how we can find what is this residual function of the school.

Snedden's Type-Group Method.—Professor Snedden has been strongly urging, as a means of discovering school objectives, a method of prognosis of type-group deficiencies. In his book on *Civic Education* he says,

“Civic prognosis will eventually constitute a basic means of determining specific objectives not only for civic but for other forms of education. Without the specific instruction and training we propose to give, the children of to-day would develop into men and women with fairly predictable qualities of civic character, due to the operation of various social forces. Through ‘prognosis’ of this sort it should be practicable to define the most evident ‘civic shortages’ or defects toward the prevention or lessening of which specific school effort should first of all be directed.”

Specifically, this proposed procedure is to:

1. Make a careful diagnosis of the group as it is now. This would reveal the assets and liabilities with which the school would need to work.
2. Make a general prognosis of what these persons will likely become when grown up.
3. Prognosticate their deficiencies when adults, if it be assumed that they will have no other education than that provided for their elders or now in sight for them.
4. Draw up a list of proposed objectives for purposive education that would offset these threatened deficiencies.
5. Select subject-matter and methods adapted to realizing these objectives.

The following is a concrete example of the procedure.¹ It is an application of the method to the discovery of objectives of education for citizenship but the application to cultural education or moral education or any other sort, would be exactly the same in spirit.

¹Quoted, by permission, from an unpublished paper of Professor Snedden's.

1. **CASE GROUP:** Boys in junior and senior classes in high schools of medium-sized American cities for period 1915-25. (All of the conditions below are submitted as hypothetical, but probably true.)

2. **DIAGNOSIS:** These boys come in largest numbers from the more prosperous families. Where one is from a poor family he is probably of exceptional ability . . . intellectually and morally. Nearly all of these boys are substantially above the average in native qualities—physical, intellectual, moral—and also in the effect of rearing—nurture, by-education—and elementary education. They have been guarded by considerable parental oversight and pushed by parental ambition. Teachers have given them more than average attention. They are a selected class.

The following are dominant characteristics, with, of course, marked individual variations: They are physically heathy and interested in "sports"; attitudes towards school work perfunctory, but failure of graduation or entrance to college is regarded as intensely undesirable (due to home influence); they are good "mixers" with co-equals and associate easily with girls of own age; they easily form groups—sets, cliques, fraternities—which have abundant social intercourse of "light" nature; instinctive leanings towards bullying, fighting, theft, sex immorality, wanton destructiveness, etc., have largely been corrected, except in possible times of "mob" temptation; they have slight interest in current politics; many are workers in church societies, but motives are social rather than religious; appreciations of dress, care of body, and manners generally good; have consciousness of class superiority, with dawning instincts of "gentlemanly" behavior; are contemptuous of emotionalism, "preaching" and moralizing; already show signs of mild cynicism in matters intellectual and social; have growing aspirations as to financial success in the world.

3. **PROGNOSIS, GENERAL:** Under normal historical conditions most of these boys will endeavor to enter the professions or business. They will avoid farming, the trades, and the manual sides of mining, manufacturing, and railroading. Those combining best ability and home circumstances will go to

college. The others will enter business. They will readily respond to the prevalent standards of industrious application, thrift, co-operation, and business morality. By thirty-five, ten per cent will be well started towards some form of leadership—business, political, educational; others will have grudgingly accepted routine inferiority in banks, clerical service, traveling or indoor salesmanship, teaching or professional practice—at incomes just sufficient to maintain small families. From them will come a number of patrons of public libraries, readers of good journals, buyers of music, residents of suburbs, and the “middle class.” As a class they work hard, save well and are extravagant only in “keeping up appearances.” By one set of standards these men will be intensely co-operative. Many will, as employees, managers, or directors be closely fitted into corporations and forced by circumstances and ambition to be loyal and hardworking. Nearly all will be members of clubs, fraternal orders, or churches. For many—lawyers, real estate men, merchants, insurance canvassers, traveling salesmen, promoters, politicians—abilities in “mixing” will prove a great asset—and be correspondingly cultivated. The vocational circumstances for some will make political leadership easy—especially for the lawyers, real estate men, bond salesmen, brokers, newspaper workers, etc.

4. PROGNOSIS, CIVIC: Given no education greatly differing from that now customary, most of these boys will become “superior” “conforming” citizens (on rating of excellent, superior, inferior, poor for all classes collectively): They will not be anarchistic, rebellious, lawless, immoral, predatory, truculent, unpatriotic, libelous—by our current standards. “Respectability” for them and their families will be held as men formerly held religious conformity. Their “conformity” to conventions made by their class or group, even as in adolescence, will provoke irony of critical novelists and students of larger social ideals.

In some kinds of civic intelligence the men of thirty to sixty whom these boys will become will rank high as results of constant economic newspaper reading, club discussion, and perception of dependence of business upon political action. But many will exhibit “class limitations” of in-

telligence, although exceptional individuals will become leading philanthropists, reformers, humanitarians.

Where public service becomes employed expert service responsive to employment by voting, these men will exact high standards where they can reach sources—but otherwise they will grumble at speculation and incompetency, being too busy to go to roots of difficulties. But given the means they will impose high standards on public service. This will be exemplified by high character of suburban civic service.

On side of civic initiative, these busy men will generally prove unequal to the obvious requirements of our civic order, especially where federate political and other groups are involved. Many will be too busy—preoccupied with making a place for themselves. Some—*e. g.*, teachers—will be barred by necessities of avoiding partisanship. Travelling men and suburban residents have insufficient community “rootage.”

But some will take up politics in professional (office-holding) or semi-professional (party leadership, bosses, reform leaders) sense. The latter will chiefly come from followers of a few vocations—law, etc.

5. CIVIC DEFICIENCIES. Prominent civic deficiencies of this class at ages 30–60 will be (a) lack of *effective* sympathetic appreciation of conditions and aspirations of others and, usually, less fortunate economic classes (and to some extent racial or national groups); (b) lack of adequate scientific knowledge of economic and other social phenomena to guide in right determination of political policies, especially for federate groups; (c) lack of understanding of effective methods of collectively employing public servants (voting) and of supervising their work.

6. Proposed specific objectives, grades 11 and 12.

- (a) To enlarge certain social appreciations and widen social idealism in anticipation of restrictive effects of later work and living.
- (b) To produce certain correct understandings of economic facts and principles.
- (c) To produce certain effective understandings of mechanics (efficiency) of public service.

Merits of Snedden's Plan.—This method has some very significant merits.

1. *It is capable of being put into immediate effect.* It is simple—requires no elaborate social surveys. It is merely a *method of thinking* about curriculum adjustments that can be undertaken by any local or state program-maker as an individual, either as a basis of building curricula or of giving educational guidance to particular pupils. Whatever may be its status as the method of ultimate appeal, it is at least a practical one for the immediate present.

2. *Its effort to set for the school only such objectives as the by-education of life will not adequately achieve, is sound.*

3. *Its principle of seeking to discover residual educational needs by studying the deficiencies of adulthood rather than of childhood, is also sound.* It must be remembered, however, that the child also has problems to solve as he moves up through his childhood and these, too, should determine a set of educational objectives. We need not take too seriously the deficiencies of the immature except as they seriously handicap children in childhood. Time and experience alone will efface many of them. A teacher in a certain preparatory school was lamenting the indolence and the unsocial attitudes of the boys in his charge. Professor Snedden turned to him and inquired, "How many of those boys, do you think, will be in jail by the time they reach thirty years of age?" "Oh, none of them, or almost none," the teacher quickly protested. The moral is plain. We need not govern our practices by what our subjects lack now, except in so far as that lack unfits them for meeting their temporary emergencies, but by what they will lack when crises are due to come, and after the informal agencies of education shall have made their contribution.

3. *The principle of thinking in terms of type groups rather than of "people" in general is also sound.* If we contemplate masses that are too heterogeneous, significant elements will offset and cancel each other and leave us only large and

empty generalizations as the net result. To be valuable, our analysis must give us details, as many of them as possible, and the more homogeneous our group the more significant details its study will yield, because it will be possessed of more individuality.

4. *Sociological considerations give reasons* for hoping that homogeneous groups can be found and defined. There are powerful forces making for homogeneity under the conditions Professor Snedden uses as the criteria of his definitions—chiefly similarity of occupation, residence, and race.

(a) Selective forces tend strongly to bring into the same occupation or community persons of like abilities, economic status, and social outlook. (*Illustrate.*)

(b) The economic returns from that vocation, particularly in a given community, make possible for all participants about the same standard of living, with the cultural consequences that go with a standard of living.

(c) The forces that make for likemindedness—struggle for like ends, constant association, the deliberate cultivation of class consciousness, etc.—operate powerfully to mold the members into a compact solidarity of sentiment and homogeneity of outlook and practice.

Show how this would operate to leave the same residual functions for the school for approximately all.

Criticism of the Method.—1. *This method does not, in practice, give us objectives in anything like as specific form as we need.* Out of ten group analyses made by Professor Snedden's seminar, which are printed in chapter 14 of his *Civic Education*, none proposed more than seven school objectives for a type group, the average number proposed being only five. These were such as the following:

To furnish sufficient knowledge of purposes, forms, and functions of government and closely related factors which

will enlarge certain social appreciations and aid in establishing ideas.

To furnish training in analyzing economic and social factors that relate both directly and indirectly to the welfare of rural life.

To furnish instruction as to available means for producing political or economic changes and to furnish so far as possible both vicarious and direct training therein.

To enlarge social appreciations and widen social sympathies.

To furnish elementary knowledge of the forms, functions and purposes of government, to aid in establishing correct ideals of the relationship which the city, state, nation, and citizens sustain to one another.

To "stamp in" the habit of reading the opinions of experts on vital issues and to stamp in the habit of attending public lectures where those topics will be discussed.

It will be evident to the reader that these are so general that they can tell us comparatively little about where to take hold. Each needs to be analyzed into much greater detail, not by a process of logical division but with respect to the particular type group. Also only those are included that chanced to occur to the person listing the prognosticated deficiencies and the compensating objectives. There is nothing to guarantee that all have been caught. When operating on such haphazard procedure it would be miraculous if as many valid objectives were not overlooked as were thought of and included. This defect of lack of system could be overcome by making the search for residual objectives, not the first step as Professor Snedden does, but the second one. The first step should be to isolate, by such methods as were discussed in the preceding chapter, the objectives of all sorts of education, whether formal or informal; the second step should then be to take up in turn each of these in this long list, prognosticate how the group in question would stand with respect to it, and select from the total number all of those in which deficiency is threatened. Such procedure would be more

scientific and trustworthy than Professor Snedden's because it would be more systematic.

2. *Generalizations based on mere impression (uncontrolled observation) are in grave danger of overshooting the mark.*—The Psalmist is not the only one who has said in his haste, "All men are liars," or something similarly foolish. We are all acquainted with the lopsided generalizations about "women" announced by disgruntled bachelors as the result of one or two unfortunate experiences; with the pessimistic conclusions about the spelling ability of stenographers; or the glib characterizations of a whole race of people from acquaintance with two or three of its members. Of course greater caution can be expected from trained sociologists, but we feel justified in distrusting generalizations that do not rest on an actual count of cases. A method that generalizes without counting cases can scarcely be regarded as scientific.

3. *The homogeneity of groups defined on an occupational, racial, and geographical basis should not be taken too readily for granted.* Because of the complexity and the mobility of modern society, individuals participate in, and are molded by, so many different groups that what would once have been a homogeneous body becomes now a very heterogeneous one. Even where the same socializing forces are operating on all, they tend more strongly to produce likeness in some respects than in others. Thus the kind of English a group of people use, or the information they have about their occupation, is much more largely common to all than are their æsthetic tastes or their political ideas. The writer's social surveys, described below, revealed a considerable degree of homogeneity within type groups in certain matters, but a surprisingly large amount of difference in others. For example, in a group of thirty-six professional men, made up of college professors, lawyers, and city physicians, the coefficient of variability in the measure of their ability to appreciate painting and sculpture was .4 and that of their ability to recognize trees, plants, and flowers was .3; while the coefficient of vari-

ability in respect to their ability to use the English language effectively in speaking to superiors was only .16 and that of their ability to use books effectively in looking up what they wished to know was only .11. How trustworthily we can generalize about a type group only field surveys can reveal. For the purpose of throwing light upon this matter the writer is giving below the distribution of individuals as to degrees of achievement in each item of culture for several groups.

II

Field Survey of Present Adult Deficiencies.—Professor Snedden's method undertakes to forecast, for the time of their adulthood, the deficiencies of young people now in school, in order that he may set up objectives of school education that will forestall these threatened deficiencies. Such a forecast must be made largely in terms of what are now the actual deficiencies of the present generation of adults occupying the position in life these youths are expected later to assume. We can doubtless learn much about what the informal agencies of education *will* contribute, and what they will leave undone, by asking what they *have* contributed to those who have already come up through them and what gaps they have left. But instead of generalizing from *impression* about the attainments and the deficiencies of this adult generation, we shall do much better to go out in the field, actually study the men and women as individuals, and generalize on the basis of a numerical count of cases. Such a field study of the cultural status of a number of type groups, members of the writer's class in Educational Sociology undertook during the spring vacation of 1921.

Forty-two students participated in the survey, each interviewing from three to eleven persons belonging to some type group. Upon their return from these surveys those students who had studied the same type group combined their results. The following table shows the groups investigated, the num-

ber of surveyors (judges) working with each, and the number of individuals interviewed in each group.

	JUDGES	INDIVIDUALS
Small owning farmers in central Ohio	7	54
Teachers, mostly young high school teachers	10	89
Business men, mostly small shopkeepers	9	76
Men in the higher professions (college professors, lawyers, and city physicians)	5	44
Housewives of the upper middle class	4	34
Young women stenographers	2	18

Results of the first four type groups are given below:

Method of Survey.—Each surveyor carried a detailed list of the elements of culture with columns in which to checkmark. The individual interviewed was asked to indicate, by a checkmark on the questionnaire, how efficient he found himself in respect to each of the items in the list—greatly, considerably, moderately, slightly, very little, or none (insiders' ratings). The surveyor, judging from his previous acquaintance with the person surveyed, or from what he could gather from the interview, also marked him, without the latter's knowledge, on the same scale, using as the standard of comparison the best five per cent of our population (outsiders' ratings). Sometimes these outsiders' ratings were made by other persons than the surveyors—by persons who knew intimately the individuals rated.

It was our intention primarily to get a declaration of the extent to which each person interviewed had felt a need for more of the several cultural abilities than he possessed, and we wished an estimate of his present possession merely to give a basis for interpreting his declaration of experienced needs, but the surveyors got this felt need from only a part of the individuals covered. Of course self-judgments are not entirely reliable, and our findings confirmed the general law that people overestimate their own ability, yet it is remarkable how closely the insider's and outsider's estimates agreed. If the reader will examine the graphs for the

two, he will find that they follow each other in pretty close parallelism.

Attainment Measured against Reasonable Expectation.—But attainment or lack of it is in itself of little significance from the standpoint of determining the residual functions of the school. The vital question is, Is there less attainment than there ought to be? Have the members of the group fallen below what it would be reasonable to expect them to attain? In order to get a measure of this deficiency each surveyor made his estimate of what would be reasonable expectation for the type group in respect to each of the items of the list, remembering that there are many other things needed in life besides this particular one, and trying to judge of relative values among the many. The medians of these estimates of reasonable expectations was taken as the standard and the median attainment measured over against it. In respect to whatever items of culture the graph for attainment coincides with that for reasonable expectation, the school need feel no particular concern; it is doing now all it needs to do in respect to these. But wherever there is a wide gap between the two graphs, there the school must bestir itself, devote more time or find better methods, so as to bring it about that the next generation shall not grow up with these same deficiencies. In these items, then, where the graphs for attainment and for reasonable expectation diverge, there lies the task for the school. It must assume as its new obligation the closing of those gaps.

Weaknesses of the Survey.—The writer is ready to confess that the means of measuring deficiencies and reasonable expectations were crude. The surveyors were young and relatively untrained. Self-estimates may, in many cases, have been wide of the mark. There was generally insufficient basis for the outsiders' estimates. But the principle of determining present attainment factually, measuring it over against reasonable expectations for the group, and taking warning from the revelation of deficiencies actual in the present generation and threatened for the next, is sound.

CHARTS SHOWING CULTURAL STATUS OF SEVERAL TYPE GROUPS.

Elements of Culture

I.

Column head values	Medians	Small Owning Farmers Distribution of Cases					
		10	8	6	4	2	0
1. Ability to enjoy various forms of art and nature.							
a. Ability to enjoy music.							
(1). Ability to enjoy some sort of music or other	8.0						
	8.1						
	7.9	10	15	18	1	4	0
(2). Ability to enjoy "classical" music	6.0						
	5.0						
	5.6	3	7	10	3	8	
(3). Ability to analyze and criticise music in terms of its technique.	5.0						
	4.0						
b. Ability to enjoy literature.	1.0	2	2	2	2	5	19
(1). Enjoy some sort of literature or other	9.0						
	7.5						
	7.9	11	13	10	2	1	0
(2). Enjoy "classical" literature	7.0						
	4.1						
	4.7	3	6	8	6	5	8
(3). Ability to analyze and criticise literature in terms of its technique.	6.0						
	2.0						
c. Ability to enjoy artistic paintings and sculpture	1.0	2	3	5	5	19	
	6.0						
d. Ability to enjoy nature.	3.7						
(1). Ability to enjoy nature analogously to art (as, e. g. the beauty of a landscape or of a sunset).	2.7	2	3	7	5	7	1
	0.0						
	5.5						
	6.6	7	8	10	4	4	3
(2). Ability to get satisfactions out of recognizing, and knowing the characteristics of, trees, plants and flowers.	9.0						
	5.5						
	6.0	8	6	5	5	6	3
(3). Ability to get satisfactions out of recognizing, and knowing the habits of, birds, animals and insects.	9.0						
	5.9						
	6.6	6	3	10	5	4	3
2. Possession of highly developed sensibilities, so as to be able to expe- rience the whole range of human emotions.	6.8						
	6.4						
	6.7	6	8	12	2	0	0
3. Capacity for large play of thought and imagination by reason of having explored many realms of reality (through reading, travel, etc.)	6.7						
	6.0						
	5.1	3	3	12	8	3	5
4. Ability to enjoy some avocation as a relief from regular work—some hobby as painting, fancy sewing, fishing, reading history, making articles of furniture, etc.	9.0						
	7.7						
	8.2	11	11	5	2	2	2
5. Ability to enjoy pleasure through some type of amusement, as going to shows, baseball games, etc.	9.0						
	8.6						
	8.7	16	12	4	0	3	1

II.

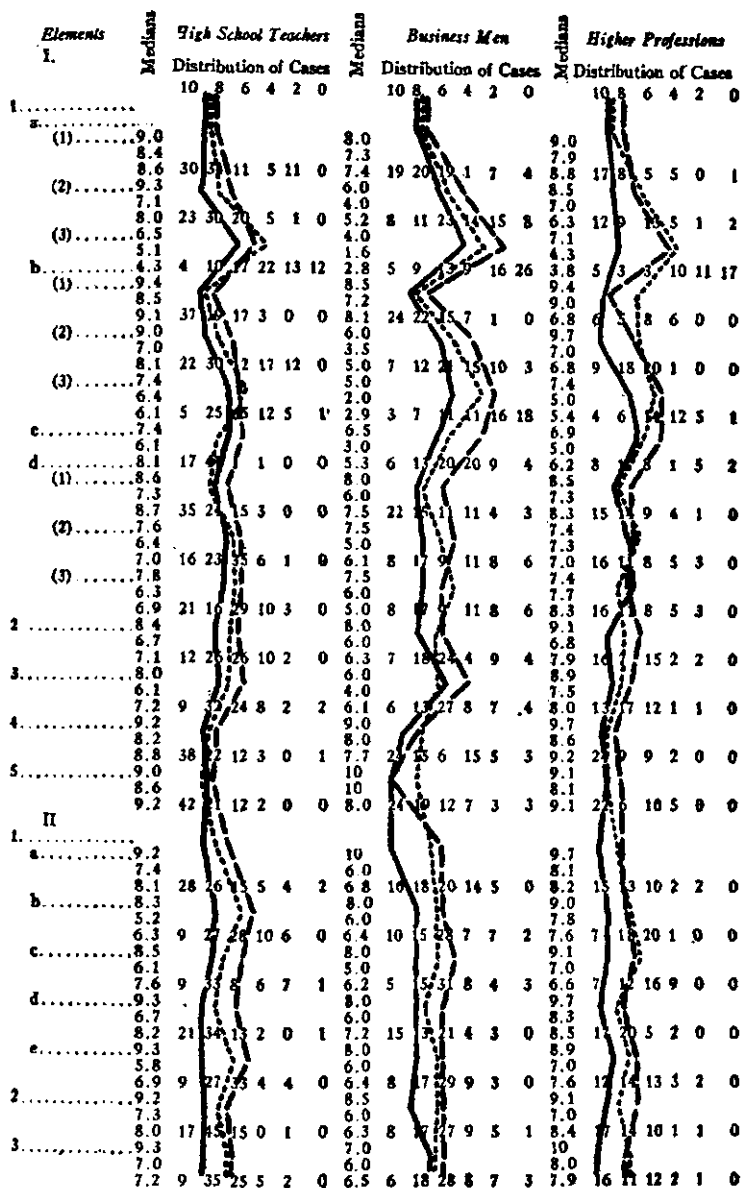
1. Ability to converse intelligently with all classes of people.							
a. Disposition to be cosmopolitan in courtesies and friendships (that is, wish to converse with all sorts of persons).	8.0						
	6.6						
	6.3	1	1	4	3	3	
b. Possession of the mansidedness of experience (or reading) that enables one to talk with all sorts of people in terms of their interests, tools and problems.	7.3						
	5.0						
	5.5	0	4	16	9	2	3
c. Ability to "steer" a conversation in such way as to keep it going in an interesting and worthwhile manner.	7.4						
	5.6						
	5.5	1	4	7	7	4	3
d. Ability to be a good listener in conversation	8.4						
	6.9						
	7.0	5	2	5	3	0	0
e. The habit of actually living up to the disposition and abilities mentioned above.	7.4						
	6.4						
	6.6	2	1	3	5	3	0
2. Ability to appreciate the other fellow's viewpoint and be charitable toward his tastes and creeds.	8.0						
	6.2						
	7.0	2	4	10	5	1	0
3. Maintenance of proper balance between egotism and humility	8.0						
	6.2						
	6.7	2	13	14	3	3	0

EXPLANATORY NOTE: The first column of figures gives medians as follows: first of each group of three is the median of outsiders' estimates of reasonable expectation; the second is the median of outsiders' estimates of present efficiency; the third is the median of insiders' estimates of efficiency. The six columns of figures on the right indicate the distribution of individuals, as rated by themselves, to the several columns under degrees of efficiency indicated by the numbers at the head of the respective columns.

THE GRAPHS chart the above-mentioned medians as follows:

Reasonable expectation —————
 Outsiders' estimates of present efficiency - - - - -
 Insiders' estimates of present efficiency

CHARTS SHOWING CULTURAL STATUS OF SEVERAL TYPE GROUPS.



Note: For explanation of figures see opposite page
 Reasonable expectation —————
 Outsiders' estimate of present efficiency - - - - -
 Insiders' estimate of present efficiency

CHARTS SHOWING CULTURAL STATUS OF SEVERAL TYPE GROUPS, Continued.

Elements of Culture

Small Owning Farmers

	Median	Distribution of Cases					
		10	8	6	4	2	0
1. The self-possession (self-confidence) necessary to maintain poise when speaking to groups of people.	6.0 4.0						
5. Respect for, and observance of, the rights and feelings of others.	3.8 9.5 7.5	0	2	10	5	6	8
a. Self restraint in respect to crowding for place (as keeping in line, not "hogging" seats or standing room in cars, not jamming selfishly through a crowd, etc.)	7.4	1	1	10	4	4	0
b. Restraint from rude teasing, from embarrassing personalities, or from sarcastic (or other biting) remarks.	9.3 7.3						
c. Restraint from introducing comments or topics into a conversation that might wound the feelings of anyone needlessly (as controversial political or religious matters).	7.6 9.3 7.5	1	9	12	2	0	1
d. Disposition and ability to conceal dislikes, disapproval, or disappointment which, if revealed, would needlessly wound the feelings of others.	7.6 8.4	11	1	8	4	1	1
e. Respect for the individuality, the reserve and personal dignity of another, these taken in the sense in which he interprets the demands of such individuality and dignity.	7.2 7.5	11		12	3	1	0
6. Charitable disposition toward the shortcomings of others; not hypercritical.	8.3 7.0 7.7	8	0	14	4	0	0
7. Responsive to social situations (Showing, by spontaneous smile or otherwise, that he is following his friend's discourse; taking his proper part in conversation; sympathetic; cordial in greeting.)	8.2 7.3	6		15	7	1	0
8. Alertness and ability to contribute to a companion's pleasure (to put him at ease; to find about him good things to commend; to entertain him with interesting conversation, music or anecdote.)	8.0 6.6	4	10	15	6	1	0
9. Ability to recognize and greet by name those persons one is expected to know, and to recall the items about them which evidence the cordiality and interest they have a right to expect.	9.3 7.6 6.6	3	1	11	3	3	1
III.							
1. Possession of poise in judgment (reasonably deliberate and cautious yet not painfully so; trained to look at any problem from all sides; not erratic.	8.0 6.6	2	7	7	2	4	0
2. Practice of seeing things in due proportion—large things large and small things small.	7.0 6.4	3	9	13	5	3	1
3. Practice of keeping "temper" under reasonable control.....	8.3 7.4	5	0	15	2	2	1
4. A reasonable degree of patience.....	6.7 7.9 6.8	2	1	7	5	1	2
5. Grace in manner, bearing, voice, etc.....	6.3 7.5 5.6 5.0	0		0	12	5	0
IV.							
1. Ability to conform to social conventions in respect to forms of etiquette, dress, manners, etc. (That is, do the "proper" thing)							
a. Disposition to conform if knew how.....	9.0 7.4 7.0	4	13	1	6	1	0
b. Knowledge of what is the "proper" thing.....	8.0 5.7	1	1	1	5	6	1
c. Habit of actually doing the "proper" thing.....	6.1 8.0 5.9						
2. Ability to avoid jarring on the sensibilities of others by swearing, vulgar anecdote, irritating behavior, dirty clothes, etc.	6.3	2	1	14	5	4	0
a. Disposition to avoid doing so.....	8.1 7.0 7.5	8		13	2	0	0
b. The good taste to know what is appropriate.....	8.0 6.2	2	2	11	4	3	1
c. The habit of always living up to a and b in all sorts of company	6.8 8.2 6.4	5	3	9	4	3	2
3. Ability to use correctly and effectively the English Language							
a. So as to talk with, or write to, superiors without embarrassment or handicap.	7.0 8.1 4.6 4.7	0		1	8	5	6
b. So as to talk with, or write to, equals or inferiors without embarrassment or handicap.	8.0 6.2 5.3	2	4	14	0	4	3
c. So as to talk in public.....	6.4 3.2 3.5	0	6	7	8	9	
d. So as to write formal articles.....	5.6 2.4 2.2	0	5	5	6	8	

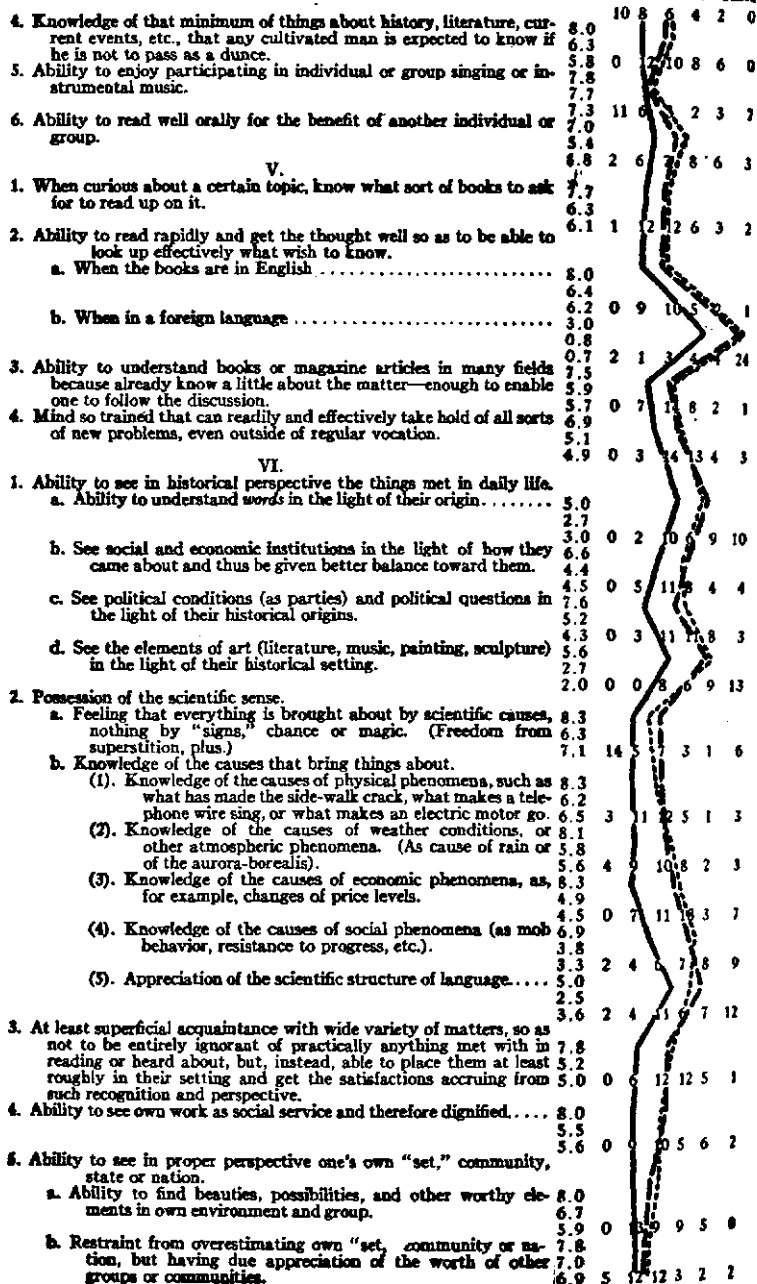
CHARTS SHOWING CULTURAL STATUS OF SEVERAL TYPE GROUPS, *Continued.*

Elements	High School Teachers				Business Men				Higher Professions												
	Medians	Distribution of Cases			Medians	Distribution of Cases			Medians	Distribution of Cases											
	4	10	8	6	2	0	10	8	6	4	2	0	10	8	6	4	2	0			
4.....	8.8						8.0						8.9								
	6.5						6.0						7.3								
	6.8	13	25	31	9	4	5.6	9	13	17	18	9	2	7.7	1	15	14	1	2	0	
5.....	9.6						9.0						10								
	7.9						7.0						9.2								
	9.0	41	20	10	2	0	0	7.9	17	30	12	7	1	2	9.4	2	10	6	0	0	0
b.....	9.6						9.3						9.7								
	8.1						7.0						9.0								
	8.7	35	33	10	1	0	1	7.9	22	21	10	8	7	0	9.4	33	8	10	3	0	0
c.....	9.4						9.5						8.9								
	7.8						8.0						8.7								
	8.6	33	35	8	2	1	0	7.9	2	2	14	7	4	0	9.4	27	4	11	2	0	0
d.....	9.0						9.0						9.4								
	7.8						7.0						8.2								
	8.1	24	31	17	4	0	0	7.3	15	2	18	8	5	1	9.1	23	12	8	0	1	0
e.....	9.8						9.0						9.1								
	7.9						7.0						9.5								
	8.2	26	32	18	0	0	0	7.3	18	22	15	3	3	0	8.8	21	13	10	0	0	0
6.....	9.4						7.5						8.9								
	6.8						6.0						8.2								
	7.6	5	36	27	2	0	0	7.2	12	2	23	6	2	0	8.6	19	14	9	2	0	0
7.....	9.2						7.5						9.4								
	7.7						7.0						8.7								
	8.2	21	33	13	3	0	0	7.3	14	26	26	7	0	0	8.4	18	14	11	1	0	0
8.....	8.8						8.0						9.1								
	7.1						6.5						9.0								
	7.7	20	26	16	8	0	0	7.1	11	27	25	6	3	0	7.7	13	14	12	5	0	0
9.....	8.6						8.0						9.1								
	7.2						6.5						9.0								
	7.6	13	37	20	7	0	0	7.0	7	27	27	6	1	0	8.4	11	14	9	7	3	0
III.																					
1.....	9.2						7.5						9.1								
	6.9						6.0						8.0								
	7.1	10	30	31	5	1	0	7.1	7	26	23	5	3	1	7.5	5	2	15	1	0	0
2.....	9.0						9.0						9.7								
	7.5						6.5						7.9								
	7.1	10	29	34	3	0	0	7.1	7	28	24	5	2	1	7.7	9	20	14	1	0	0
3.....	9.2						8.0						9.7								
	7.5						6.5						8.2								
	7.9	16	40	19	1	0	0	6.5	13	44	21	10	3	3	8.3	13	1	9	4	2	0
4.....	9.5						8.5						9.4								
	7.4						7.0						7.9								
	7.6	13	27	37	1	1	0	6.5	8	20	27	6	5	3	7.7	18	2	10	12	1	0
5.....	8.8						6.5						9.1								
	7.0						6.0						8.5								
IV.																					
1.....	7.0	9	25	29	5	1	0	6.2	4	17	36	4	4	5	7.2	14	12	10	11	1	0
a.....	9.4						8.0						9.1								
	8.5						7.0						8.7								
	9.2	44	20	11	3	0	2	6.9	13	18	22	8	3	1	9.2	25	13	3	3	2	0
b.....	8.3						7.0						8.9								
	7.7						6.5						9.0								
	7.7	10	35	20	2	2	0	6.5	4	21	26	7	5	2	7.3	12	18	8	15	1	0
c.....	8.6						6.5						8.9								
	7.5						6.0						8.2								
	7.7	7	30	32	0	0	0	7.7	4	1	6	2	0	1	7.9	13	17	6	7	1	0
2.....	9.4						10						9.4								
	9.2						8.0						8.6								
	9.5	57	27	1	0	0	0	7.8	18	2	12	8	2	1	9.5	29	7	7	1	0	0
b.....	9.2						8.0						9.1								
	8.5						6.5						8.7								
	8.3	30	38	9	1	0	0	7.0	8	26	21	8	2	1	9.2	23	6	15	0	0	0
c.....	9.1						8.0						9.1								
	8.2						6.5						9.2								
	8.0	22	37	23	0	0	0	6.5	6	8	32	8	2	1	8.5	21	3	11	4	0	0
3.....	9.4						8.5						9.1								
	7.0						6.5						8.3								
	7.2	15	37	28	2	3	0	6.5	4	19	26	7	6	4	8.0	1	0	9	3	0	0
b.....	9.6						10						9.1								
	8.5						6.5						8.3								
	8.4	29	32	17	2	1	0	6.4	2	25	23	10	5	7	8.5	18	15	9	2	0	0
c.....	7.8						6.0						8.9								
	6.1						3.5						8.2								
	6.1	15	25	25	10	6	1	5.1	3	11	20	19	7	6	7.9	12	13	12	1	0	1
d.....	7.4						6.0						8.3								
	5.1						2.0						7.5								
	6.6	7	27	25	14	2	2	4.6	3	12	6	14	2	10	7.5	10	13	8	7	1	0

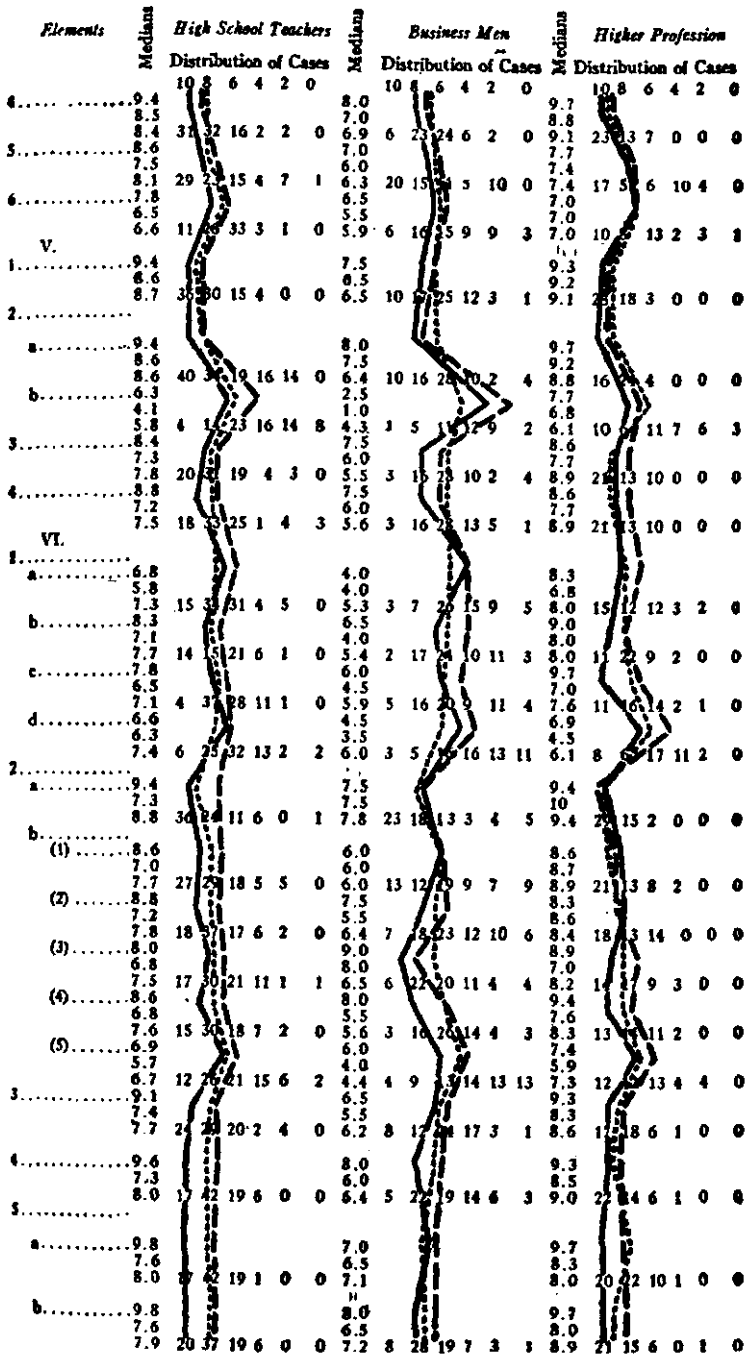
CHARTS SHOWING CULTURAL STATUS OF SEVERAL TYPE GROUPS, *Concluded.*

Elements of Culture

Medians
Small Owning Farmers
Distribution of Cases



CHARTS SHOWING CULTURAL STATUS OF SEVERAL TYPE GROUPS, *Concluded.*



Surveys by Actual Tests of Adults.—It should prove feasible to correct the crudities of the above surveys by developing actual tests for achievement. There is now a test for measuring appreciation of poetry. A test for measuring appreciation of music and pictorial art could be developed. Perhaps it might be feasible to make such tests on the principle of correlating an individual's ranking of pieces with a standard ranking made by a composite of expert rankings. The writer has developed a test for general information with sociologically determined weightings, and a test for a knowledge of current events could be worked out in an analogous way. (*Propose plans.*) For many of the other elements of culture adequate tests could be devised, possibly for all of them. There would be many difficulties involved in administering them, but these difficulties should not prove insurmountable. In view of what has been, and is being, accomplished by way of scientific measurement, one ought to adopt in these matters the attitude that "you never can tell till you try." If we could measure the degree of efficiency of the members of society in respect to the several elements of culture by actual tests, our findings would be much more reliable than personal estimates of these efficiencies. There might also be developed some objective method for determining reasonable expectation. (Could it be the attainments of the B class individuals of Professor Snedden's proposal,¹ the attainment of these being measured by such standardized tests as those suggested above?) The gap between these two—measured attainment and measured reasonable expectation—could then be quantitatively stated, and the functions of the school thus indicated. The job proposed is, of course, a tremendously big one, but if we take the matter seriously enough, it will certainly ultimately prove feasible to mark out the functions of the school on the basis of really scientific surveys. We have been using cultural education as an illustration. But obviously the same principle, and adaptation

¹ See Snedden, *Sociological Determination of Educational Objectives*, pp. 218-221.

of the same methods, could be used in every other phase of education. This is a big field for research that will challenge the constructive thinking of dozens of investigators.

Predictions Based on the Measurement of Pupils.—The criterion that must guide us in determining what the school should do, is, as said before, the deficiencies from which individuals suffer when they are confronted with the actual situations for which their education should prepare them—which is mostly in adulthood. But it is difficult for us to reach adults to measure them; on the other hand, it is easy for us to reach children. If it were possible for us to foretell what would be the deficiencies of later life by measuring individuals while they are yet children, our problem would be immensely simplified. Could prediction be made on that basis? There are sociological reasons for assuming that it might. For children of a certain type group are already under the molding influence of that group. The sort of English used by children of sheet-metal workers living in blocks of houses that rent for from twenty to thirty-five dollars a month begins already in childhood to diverge from that of children of business men living in fine suburban residences and with club-going mothers. So do their social manners, their political ideas, their economic prejudices, and their abilities in recreation diverge. They are already taking on the ethica of their groups. Time will merely carry them further into the usages of their respective classes. Already the educative forces of the social life which is to make of them at length the finished product are at work, and the missing ones have already begun to leave gaps which will only widen as times goes on. It would, therefore, seem feasible to detect these threatened gaps early and thus sense the obligation of the school for the type group in question.

The writer has made no tests to prove that this supposition is true. But they could be made. Ideal conditions for establishing this principle would involve that sets of youngsters be measured in respect to the items of efficiency and the

several groups ranked in the order of average attainment, and that, say twenty years later, these same persons, now as adults (so far as they have remained within the same type group) be measured again and the groups ranked. If the correlations between the two sets of rankings proved to be high, the early measurements would have been thereby shown to have predictive value; if low, little or no predictive value. But we could not afford to wait twenty years to conclude our proof. We might therefore measure and rank our groups of youngsters and, at the same time, measure typical adult members of corresponding groups and rank them. Here, too, a high correlation between the rankings would indicate the feasibility of replacing the measurements of adult efficiencies, which is difficult, by that of child deficiencies, which is relatively easy.

Assuming that the latter should prove a reliable basis for prediction, show in some detail how it could be administered. How would tests of youth that were to reveal probable future efficiency need to differ from those measuring adults for present efficiency? Have we now any analogies for such tests?

III

Direct Evaluation of the Contribution of Extra-School Educational Agencies.—The two methods discussed above for finding the residual function of the school both involved studying the product of all the education forces after they had played upon the individual up to the period of his adulthood. They provided for no effort to assign accomplishments to this or that agency, but merely asked what still remains undone, in order that we might charge the school with responsibility for doing it. But it might be illuminating to make an approach from the other end—to measure directly the contribution made by each of the extra-school agencies. What is the Moving-Picture House teaching? Radio Broadcasting? The Home? The Church? The Newspaper?

A member of my class, Miss Myrtle B. McGraw, made

such investigation of the contribution of one of these agencies to one aspect of cultural education, namely, the contribution of the home to the formation of æsthetic tastes in the children. She selected for study children in the seventh and eighth grades of three city school systems in Ohio. To these, through their teachers, she gave a questionnaire containing twenty-eight questions of which the following are samples:

Have you a piano in your home? A player piano? A phonograph?

Name four phonograph records or piano pieces you like best. Four pieces your mother likes best. Your father.

With your parents' help give the names of as many pictures as you can that you have on the walls of your home. Which two of these do you like best?

Do your father and mother ever take you to places for the purpose of seeing unusual scenery?

Have you taken private lessons in music at any time? For how many months?

Results.—About a thousand questionnaires were returned. These were worked up statistically, consensus of three judges being used to evaluate the tastes in art, music, and literature evidenced by the selections of the children named. A small part of the findings will be given here as samples.¹

1. A very close relation was found between the tastes of children and those of the parents. The tastes were evaluated on a scale of five steps. In 72.8% of the cases the child's musical taste was identical in elevation with that of the mother; in 23.5% of the cases the child's taste deviated by one step from the mother's; in 3.2% by two steps; in .6% by three steps. The agreement of the child's taste with the

¹ For complete report of the study, see *The Journal of Applied Sociology*, Vol. 8, pages 67-83.

father's was also fairly close, though not so close as with the mother's. In art, 77.2% had appreciation in exact agreement with the pictures on the walls of the home; 22.3% deviated from that by one step; and .4% by two steps. This is doubtless to be interpreted as indicating a great influence of the home over the tastes of the children.

2. *Children's tastes were best*—that is, measured by standards generally accepted by connoisseurs—in literature, next best in music, and worst in pictorial art. The mode was at "good" for literary tastes, "fair" for music, and "poor" for art. It is noteworthy that the tastes ascend in value in proportion as the school has usually concerned itself with the materials involved.

3. *The mother's taste is superior to the father's* in both literature and music. To the extent to which the child's differs from the mother's it deviates upward, so that the child's taste is slightly better than the mother's and considerably better than the father's. That probably points to some contribution the school is making now more effectively than it did a generation ago.

4. *A surprising thing was discovered regarding the contribution of the phonograph.* It appeared that appreciation for music grew worse as the percentage of homes with phonographs increased.

20%	of the children with tastes graded "excellent" have a phonograph	in the home.
52.5%	" " " " " " " " "good"	" " "
57.6%	" " " " " " " " "fair"	" " "
65.6%	" " " " " " " " "poor"	" " "
75.0%	" " " " " " " " "very poor"	" " "

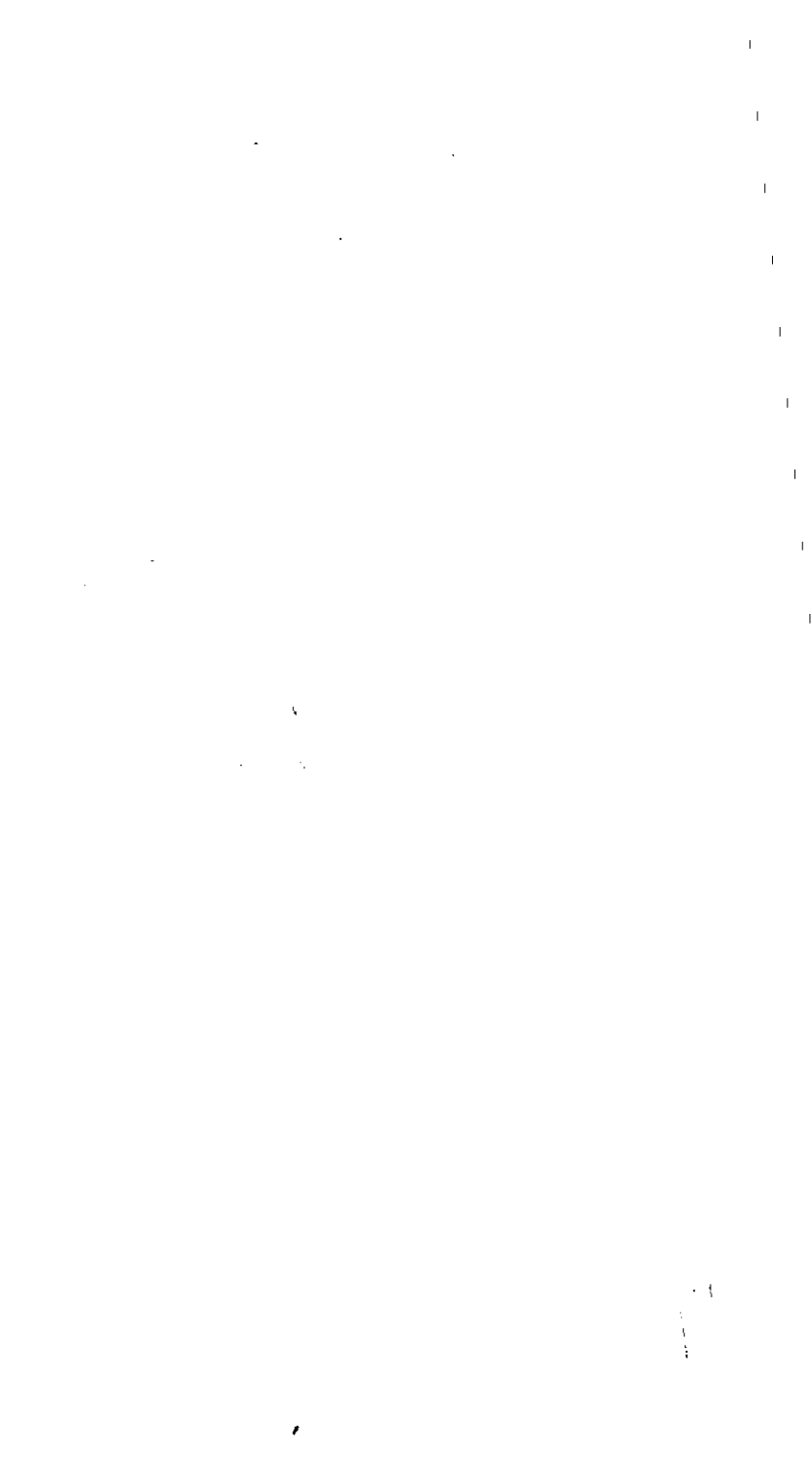
Does that, or does it not, mean that the phonograph, with the type of record most widely advertised and most aggressively pressed upon purchasers by salesmen, is corrupting music tastes instead of elevating them? If so, we must take consolation from the influence of another contribution the

home is making—the private music lesson. Here the correlation is exactly the opposite.

57.3% of the children with tastes graded "excellent" have taken private

								music lessons.		
65.0%	"	"	"	"	"	"	"good"	"	"	"
46.4%	"	"	"	"	"	"	"fair"	"	"	"
31.3%	"	"	"	"	"	"	"poor"	"	"	"
41.6%	"	"	"	"	"	"	"very poor"	"	"	"

Analogous investigations need to be made regarding the contribution to various forms of efficiency by the newspaper, the movies, the church, the library, and other non-school agencies.



APPENDIX A

ANALYSES OF SOCIAL EFFICIENCY: TENTATIVE LISTS OF OBJECTIVES OF EDUCATION

Throughout this volume it has been insisted that we must analyze social efficiency into its particular elements and then consciously seek means for realizing each. In Chapters XVII and XVIII methods were discussed for making such analyses. The program set forth there will require for its complete realization a number of years of co-operative effort on the part of many competent investigators. Below are given such tentative analyses as the writer has been able to make up to this time, and which may serve as a starting point for further work. Only the larger headings are given, of course. Each heading will need to be resolved into much more specific detail.

In the program making of the future the educator will start with some such analyses and proceed somewhat as follows:

1. He will ask whether the school needs to do anything to have the desiderated trait in question realized in the lives of his pupils, or whether casual contacts will sufficiently develop it, raising the question regarding each type group with whom he must deal.
2. If he finds it necessary that the school take a hand, he will ask *what* the school can do and *how* it can go about it—that is, he will try to decide on what occasions, with what subject-matter, and by what methods of teaching, the end can be attained.
3. He will organize courses and lessons dominated by the aim of developing the abilities in question. In doing this he will break up each large element into as many small units as necessary, each serving as the basis for a single lesson.
4. For the present he will work out these lesson plans in groups covered by the traditional course names, but ultimately he may regroup them into "courses" more convenient for jointly covering the whole range of objectives.

For the sake of illustrating this principle, a few notations are

given under three of the items in the analysis of civic efficiency below. The other items are given without notations for two reasons: (1) on account of lack of space; (2) because little of a scientific character is known about most of them. Scientific method applied to this matter must ultimately involve:

1. The completion of the analyses by such methods as those discussed in Chapters XVII and XVIII.

2. The determination of the function of the school in respect to each by such methods as those discussed in chapter XIX.

3. Parallel-group experimentation with various alternative methods of working for them, so as to determine which is most effective and economical, the experiments being conducted on a quantitative basis.

4. The development of means of measuring attainment so that we may know to what extent we are successful. This will require much more analytic measuring instruments than the present standardized tests, since we must know, not about our success in the lump, but how we are succeeding with each of the specific abilities we are attempting to develop.

TENTATIVE ANALYSES

I. *Cultural Efficiency*

An analysis of culture was given on pages 378-383, to which the reader is referred.

II. *Socio-Civic Efficiency*

I. The civically efficient individual must¹ be prepared to maintain a proper perspective as to his place in organized society.

1. He must have become so habituated to the social viewpoint that he holds his own rights no higher, relatively, than those of others.

a. **NEED.** Does this necessity set a problem for the school? Do present adults take, as largely as desirable, the social point of view? Or are they too largely governed in their civic relationships by considerations of personal interest? If the latter, is this selfishness manifested by only a

¹ "Must" is used here as a short way of saying "Efficiency is promoted by the possession of this trait. In so far as one lacks it he falls short of complete efficiency."

few type groups of people or is it found among all groups? Is there reason to believe that the on-coming generation will be, if left go, sufficiently disposed to take at all times the social (other fellow's) point of view in governing their actions, or is there danger that they will grow up with something like the same individualism as their forebears? Is it, therefore, desirable that the school should undertake to develop in them traits that will insure their taking the social point of view?

b. MEANS. If necessary that the school should do something to make the on-coming generation more socially minded, then the next question confronting the educator is: "What can I do and how go about it?"

- (1). Biases caught from the example of the teacher will help. The teacher needs to be himself so socially minded that in all conduct, issues, or discussions he approaches the situations from the social point of view as a matter of course. This practice will inevitably tend to develop through imitation a corresponding bias in the pupils who are in contact with him.
- (2). Clear ideas as to what is right in this respect, and why, are also necessary. Hence let the teacher see to it at opportune times in history, civics, geography, etc. that the pupils are confronted with *problems*, the thinking through of which will lead to intellectual clarity as to one's duty to measure his actions as an impartial spectator would measure them and from the point of view of the welfare of society.
- (3). Not only are clear ideas needed but also ideals—emotionalized ideas. There must be dynamic put back of the ideas. Several methods are available for this, one of the

APPENDIX A

most effective of which is to relate, for the admiration of the pupils, the acts of heroes who, under trying circumstances, took the social point of view, and also to hold up for their contempt persons who despicably failed to do so. Wherever ideals are to be formed, this method of intellectual clarification through discussion and problem solving and then emotionalization through an appeal to "heroes" and "slackers" is likely to prove effective.

- (4). Cases of discipline about the school can also be used to clarify ideas and to build habits of social mindedness.
2. The civically efficient individual must be above sectionalism, must be ready to support the just interests of any section of his state, or of his nation, on an equality with those of his own section. To this end he must know the characteristics of the several sections and must possess the necessary power of self help to acquaint himself with any other requisite details.
 - a. NEED. Ask same questions as under *a* above.
 - b. MEANS. (1). Requires ideals and biases, which may be developed as in above case.
 - (2). Requires clarified ideas. Problem solving is indicated, especially thinking through such proposals as "pluralism" as a principle in government.
 - (3). Information about needs of sections. Many a person does injustice to outside groups because he knows so little about them that they do not seem real to him. Remedy: intimate and realistic acquaintance with the various sections through geography and history. Problem solving as to why New England needs a high tariff, why the West opposes ship subsidy, etc. in connection with geography, civics and history.

3. The civically efficient individual must have developed the spirit (that is, the functioning ideal) of service and of unselfishness, so as to carry into practice the impartial judgments of 1 and 2 above.
4. Must have a thorough appreciation of the place and function of the organized state as a social institution.
5. Must have proper perspective as to the relation of constituent to constituting political units—of local community to the state, of the state to the nation, and of the nation to the world at large.
6. Must be actuated by a genuine and functioning patriotism toward the hierarchy of states implied in above. To this end he must have developed in him the following traits:
 - a. The general spirit and ideal of loyalty to the group to which one happens to belong. (Patriotism, like charity, must begin at home. One is trained for loyalty to a large cause by being loyal to many small, near-at-hand causes.)
 - b. A thoroughgoing approval of the genius of the nation and devotion to its ideals.
 - (1). NEED. Patriotism that does not rest on a full understanding of what one's nation stands for, and thoroughgoing approval of this, is shallow. It is a purely emotional and jingoistic patriotism that is in danger of lapsing at any time. Our citizens need, for the substantial grounding of intelligent devotion to their country, a full realization of the unique genius of the nation and hearty acceptance of that genius. During our participation in the World War we considered it appropriate to make more intelligent the patriotic devotion of our soldiers by teaching them about our war aims, which was essentially a discussion of what America stands for.
 - (2). MEANS. Primarily a proper study of the history of the country. But appreciation

APPENDIX A

of what the nation particularly stands for should not be expected to come automatically from any and all study of history. The teaching must be deliberately so handled as to give the appreciation, which probably could be best achieved by the study of one distinguishing characteristic after another in units of several lessons each. Examples:

- (a). The big brother attitude as displayed in the Monroe Doctrine at its origin, the war to free the Slaves, the war to free Cuba, our attitude toward China, etc.
- (b). Political, economic, and social democracy. Trace the growth of democracy and show aspirations yet to be realized. Create admiration for principle of democracy.
- (c). Vast economic power. Trace growth of invention, industrial organization, and financial power, culminating in present-day supremacy.

If conditions do not permit such topical organization as above, occasion can be taken wherever any relevant incident is met in history to treat it as a type and reinforce it with similar acts in such way as to show the spirit back of it to be a general national trait.

Secondarily, use can be made of stories, whenever occasion permits their use—in opening exercises, in civics, in history, etc.—contrasting the things valued in this country with those valued in countries antithetic to ours in spirit.

- c.* Patriotism needs, further, an admiration for the great men and great achievements of our past and our present.
- d.* Recognition and idealization of the high claims of the state upon one's services.
- e.* Love of the nation's material features and its common associations; as love of its hills, its rivers, its climate, and its home associations.
- f.* Readiness to acquiesce in the will of the majority, except for efforts peaceably to convince opponents; be a "good sport."

II. The civically efficient person must be able to perform effectively his political obligations.

- i.* Participate effectively as a lawmaker (in a democracy).
 - a.* Have a sense of his personal responsibility for government, a recognition of his obligation to participate in all of its functions in which he is given a voice, an interest in civic affairs.
 - b.* Have the initiative necessary to make this interest count maximally for the state.
 - c.* Know the machinery of voting.
 - d.* Be able to measure candidates for office.
 - (1). Form a sober and correct estimate from personal contact.
 - (2). Make judicious estimate from the candidate's past record, either in the same position or in analogous ones.
 - (3). Interpret correctly newspaper propaganda regarding candidates.
 - e.* Choose candidates with serious consideration for their fitness for office, instead of for personal reasons.
 - f.* Be able to judge of political policies.

To be safe and rational such judgments require:

 - (1). The habit of acquainting one's self intimately with the local conditions which the policies are designed to meet.
 - (2). Knowing the history of similar ventures.
 - (3). Knowing the general principles of sociology

APPENDIX A

and economics under which the special cases are to be subsumed.

- (4). The habit of personal reflection and observation with a view to arriving at sound underlying principles and their applications.
 - (5). Knowledge of the policies pursued in other communities and other countries.
 - (6). Knowledge of (or the habit of studying) the temper of the people as related to the matter in question to the end that the bad effects of a shallow idealism may be avoided.
 - (7). Ability to resist stampede and to think calmly no matter how great the general excitement (including political party stampede).
- g.** Have ideals, knowledge, and ability necessary to criticise intelligently the functioning of government and to assist in remedying its defects.
- (1). Competent to judge as to the standards governmental agencies could reasonably be expected to attain.
 - (2). Ability to place blame for failure where it belongs.
 - (3). Knowledge of the remedies open to the citizenry for correcting given abuses.
 - (4). Ability to take initiative, alone or with others, in correcting abuses.
 - (5). Disposition and ability to combat unjust criticism of government on part of self and others.
- k.** Disposition to safeguard the honesty of public elections and knowledge of the resources necessary to carry this disposition into effect in actually preventing frauds.
- 2.** Further the development of political institutions.
- a.** Be able to translate facts into standards.
 - b.** Have the ideals and the courage actively to urge

these standards upon the state—that is, to be a propagandist for civic betterment.

- c.* Appreciate and support the work of political prophets.
- d.* Be disposed (and able) to co-operate effectively with others in attaining desired ends. That is, to work as a group (including willingness to accept expert leadership).
- e.* Possess the tact, the command of language, the forensic ability, etc., essential to convincing others.
 - (1). Be able to convince through effective writing.
 - (2). Through public address.
 - (3). Through private discussion.
 - (4). Possess the practical insight into the social and individual psychology conditioning progress in thought.
- f.* Be prepared to assume such place as leader or officer as the state is ready to intrust to him.
 - (1). Be willing to accept office as public trust and to conduct it only as the ultimate interests of society demand.
 - (2). Have the necessary technical equipment (mostly clerical ability) demanded in the non-specialized offices.
 - (3). Be acquainted with the responsibilities, the duties, and the ideals pertaining to the office.
 - (4). Possess the training in methods of self help requisite for getting up, or carrying further, the above acquaintance (that is, of (3) above).

III. The civically efficient person must be able to fulfill effectively his judicial obligations.

1. Know the law.

- a.* Have caught the spirit back of common law and be able to apply this spirit.
- b.* Know the statute law in respect to those relationships that most intimately touch his life. In

determining which these are, the principles of relative utility should be applied.

- c. Possess the functioning ideal (or the habit) of getting up acquaintance with other laws as they come within the range of his activities, and be acquainted with the means by which such knowledge may be acquired.
2. Be ready to assist in carrying out the law.
 - a. Obey the letter of the law himself gladly and without the necessity of compulsion.
 - b. Cheerfully conform to the spirit of the law—not, on the one hand, attempting to evade it through technicalities, nor, on the other hand, placing upon it such a puritanically legalistic interpretation as to make it a social liability, and thus make it discredit the institution of law.
 - c. Communicate to others his spirit of loyalty and sense of personal obligation, and thus influence them to obey the letter and the spirit of the law in the same spontaneous manner.
 - d. Train his children into habits and ideals of good citizenship.
 - e. Be ready to compel laggards to obey the law who cannot be induced to do so through friendly remonstrance, by reporting them to the duly constituted authorities.
 - f. Be ready to accept appointment to any law-enforcement position that the common interest demands, such as deputy constable, juror, referee, etc.
- IV. He must be able to utilize effectively the governmental agencies.
1. The courts, including not only a knowledge of how to use them but also a proper appreciation as to when to use, and when not to use, them.
 2. The personal services of government experts (such as seeking advice on some question of agriculture from the proper state or national office).
 3. Government printed matter (know that printed matter is available, where, and how to get it, etc.).

- V. Must be prepared to embody in his viewpoint and his conduct, the implications of democracy.
1. Be economically self-supporting, for himself and his dependents, through some socially legitimate vocation.
 2. Possess a culture in common with his fellow citizens, in order that he may live in truly democratic intercourse with them, and use his influence to secure facilities for such common culture for all others. Such common culture must include:
 - a. A body of common information and common experience as a complement to his specialized information and experience.
 - b. A common pregnant vocabulary.
 - c. Such training in the common forms of expression (including conversation) as to make possible free and unembarrassed interchange of ideas with all persons.
 - d. Such acquaintance with the ordinary social conventions as to make possible unembarrassed association with all persons.
 - e. Power to participate in common in outdoor and indoor sports.
 - f. Common tastes and appreciations.
 3. Recognize the common equality of rights and be disposed to make an effort to get these embodied in practice. The rights will include:
 - a. Educational equality with admission of the necessity of supporting the requisite institutions financially and of compelling attendance.
 - b. Legal equality.
 - c. Political equality.
 - d. Industrial equality.
 - e. Social equality.
 4. Recognize the common equality of duties to the state, and be willing to assume the corresponding burden and insist that such burden should not be shirked by "privileged classes" or individuals. These common duties must include:

- a.* The duty to participate in making and enforcing law (mentioned above).
 - b.* The obligation of rendering military duty on a perfectly impartial basis.
 - c.* The duty to support the government through taxation.
 - (1). Willingness to assume one's full share of the tax without effort at evasion.
 - (2). Insistence that no privileged class or individual evade a part of his just tax and thus undemocratically impose an undue portion on others.
 - 5. Be considerate of the opinions of others, tolerant, open-minded.
 - 6. Be neighborly, kind, sociable, a good mixer.
- VI. The socially efficient individual must conserve the wealth of society (both material and spiritual) and increase this wealth as much as possible.
- 1. He must have the functioning ideal of efficiency.
 - a.* For himself as affecting every phase of his activity.
 - b.* For the aggregate of men and women as producers and consumers of economic goods. (He should have an "economic conscience" comparable to his moral conscience).
 - c.* For the organized state in its governmental activities.
 - 2. Be prepared, through possessing the requisite knowledge, ideals, habits, etc., to assist in conserving society's material wealth. That is:
 - a.* Lessening the waste in consumption of food and clothing.
 - b.* Reducing the loss due to fire and floods.
 - c.* Conserving the forest and the mineral wealth.
 - d.* Conserving the valuable birds, fish, and wild animals.
 - e.* Preserving the fertility of the soil.
 - f.* Saving the personal services of others, thus freeing more workmen for the creation of general social utilities.

- c. Promote educational enterprises, such as chautauquas, public lectures, musicals, community pageants, contests and discussions.
 - d. Support movements that tend to the moral and religious improvement of the community.
5. Help conserve the dignity and æsthetic appearance of the community.
- a. Keep his buildings painted and in decent repair, his lawn mown, fences repaired, etc.
 - b. Keep the snow shoveled off his walks and otherwise keep them free from obstructions or unsightly features.
 - c. Help keep the public streets and the public parks in good condition.

III. *Vital (Physical) Efficiency*

- I. The physically efficient person should possess the ideal of good health.
- 1. Should set as a standard for himself personally the continual maintenance of good health, including not only freedom from disease but a reserve of energy and resiliency, and should be ready to conform his régime of living to the attainment of this standard.
 - 2. Should possess a keen health conscience in respect to other members of society and the propagandist spirit essential to making this health ideal a potent factor in the community. (That is, one should feel as responsible for urging health upon his fellows as he does for urging upon them morality or concern for their religious welfare.)
 - 3. Should have an insight into the possibilities of preventive medicine and devotion to the ideal of eliminating needless illness and death and of prolonging to its maximum the span of life.
 - 4. Should have developed a disposition to insist that society guarantee to everyone, not only "life and liberty," but also the conditions essential to health and longevity. (This includes insistence, by law, upon proper ventilation in factories and schools,

protection against fire and exposed machinery, etc.).

II. Should have developed the *habits* essential to hygienic living such as:

1. Wearing clean clothes and keeping shoes clean.
2. Having clean face and hands and reasonably frequent bathing of body.
3. Brushing, and otherwise caring for, the teeth.
4. Keeping nails manicured.
5. Properly regulating temperature and ventilation in any room that he occupies.
6. Properly masticating his food.
7. Evacuating the bowels regularly.
8. Of thoughtfulness in avoiding danger—"safety first."
9. Of regularity in sleep and meals.
10. The habit of correct breathing.
11. The habit of drinking plenty of water.
12. The habit of taking the necessary exercise.
13. The habit of abstaining from harmful practices.
 - a. The use of tea and coffee.
 - b. Sex perversions.
 - c. Use of tobacco and strong drinks.
 - d. Overeating or oversleeping.
 - e. Excessive physical exertion (such as in very strenuous athletics or excessively heavy lifting).
14. Habit of controlling emotional life so as to make it contribute to health instead of opposite.
15. Should have acquired such ideals and biases, and such knowledge of the reasons for the habits mentioned above as will tend to get a reinforcing intellectual sanction for the habits and also make the agent more adaptable and saner in applying them.

III. Should have as well conserved and symmetrically developed physique as nature permits.

1. Have conserved the correct posture that nature bequeathed him (by habitually standing and sitting correctly, by being seated in proper school desks, etc.).

2. By orthopedic treatment, by proper diet, etc., have had corrected the postural bone defects that are remediable in this way.
 3. By properly prescribed calisthenic drills, have corrected such muscular defects as flat foot, round shoulders and hollow chest.
 4. Have preserved his teeth by proper cleanliness, by repair of caries, etc.
 5. Have corrected, by orthodontic treatment, dental irregularities injurious to health and appearance.
 6. Have removed, or corrected, diseased organs tending to impair health or appearance, as adenoids and enlarged tonsils.
 6. Have conserved his vision by avoiding misuse of his eyes and by early attention to such defects as astigmatism, squint, etc.
 8. Have conserved his hearing by avoiding abuse of his ears, and by proper care of ear ailments.
 9. Should have acquired such knowledge of the reasons underlying the above matters, and such ideals and biases pertaining to them, as will tend to hold him to the relevant practices throughout life.
 10. Should have had his vitality conserved through sufficient proper nourishment, etc.
 - a. The opportunity to breathe (in school, factory and home), plenty of fresh air.
 - b. To breathe properly moistened air.
 - c. Air free from dust.
 - d. Should have had sufficient of the right sort of food.
 - e. Should have been adequately and properly clothed.
- IV. Should be prepared to deal with emergencies in the absence of expert assistance.
1. With accidents, such as
 - a. Poisoning.
 - b. Severed blood vessel.
 - c. Serious burns.
 - d. Broken or dislocated bones.
 - e. Drowning.

- f.* Early symptoms of rapidly developing diseases.
2. Recognize the early symptoms of major diseases so as to get for them expert assistance in their first stages.
 3. Be able to recognize, classify and treat effectively minor ailments (as colds, etc.).
- V. Should be prepared to utilize effectively the services of experts.
1. Have an intelligent appreciation as to when expert medical attention is needed.
 2. Ability quickly to detect quacks and quack remedies.
 3. Among *bona fide* practitioners be able to distinguish between the more and the less competent and patronize the former.
 4. Should know such elements of anatomy and physiology as are necessary to enable him to judge of the expert's competency, to appreciate his directions and recommendations and to co-operate intelligently with him in preserving and restoring health.
 5. Able to keep in touch with new developments in health science, so far as it is possible for laymen to do so.
- VI. Be prepared to combat the spread of transmissible disease.
1. Know what diseases are communicable and the manner of their communication.
 2. Know what precautions are necessary to prevent his communicating his disease to others and catching theirs, with the motivation requisite to make this knowledge effective.
 3. Be devoted to a sane program of quarantine, community sanitation and other legal preventive measures.
 4. Promulgate, and follow personally, a eugenic program that will prevent the transmission of physical handicaps from one generation to the next.
 5. Help eliminate flies, pools of stagnant water, decaying garbage, and other matters that tend to spread disease through breeding insects to carry its germs.
- VII. Should be prepared to act intelligently in respect to his food.
1. Know the amount of food required and the effect of an excessive or a deficient amount.

2. Know the requirements in respect to kind and balance of food elements.
3. Be prepared to detect adulterated foods, or foods so doctored as to be injurious to health.
4. Know the conditions favorable to digestion.
5. Be a supporter of, and a propagandist for, scientifically constructed pure food laws.

VIII. Be prepared to utilize dress in such way as to conserve health.

1. Know how to adapt dress to the ventilation of the body and to the control of bodily temperature.
2. Know the effect of unnecessarily tight or ill fitting clothing, including shoes.
3. Have the ideals, perspectives, and habits necessary to make the above knowledges function.

IX. Should be efficient in recreation.

1. Should appreciate the place of recreation in life and encourage and support community recreation enterprises.
2. Should himself have the capacity to enjoy play and the ideal and habit of participating regularly in it.
3. Should know *how* to play; that is, he should have learned the games, both outdoor and indoor, both active and sedentary, necessary to enable him to participate readily in play.
4. Should have the ability to keep his body in optimum condition by proper use of calisthenics and setting-up exercises.
5. Should have the ability to use periods of relaxation effectively.
 - a. Ability to control sleep in the interest of health.
 - b. Ability to relax when necessary in waking hours.

IV. Domestic Efficiency

I. The domestically efficient person should be able to meet the economic problems of family life.

1. The head of the house, or he with slight assistance from other members of the household, should be sufficiently efficient vocationally to earn a living for the family.

2. The mistress of the house, or she with slight assistance from other members of the household, should be able to carry on efficiently the ordinary work of house-keeping, such as cooking, cleaning, arranging furniture, laundering, and purchasing economically. Even if she is to employ help for this work she should have been trained personally to do it as a basis for its supervision. (Training for this work involves the whole field of domestic science, domestic art, and household sanitation.)
 3. The head of the house should be relatively efficient in at least one secondary occupation as a resort for the support of his family in case of some accident with the primary one.
 4. The wife should have been trained for some effective vocational work as a means of self support in case any emergency should throw her on her own resources.
 5. The domestically efficient person should be able to do the small repairing about the home, such as making minor repairs in gas or water pipes, on doors, gates and fences, or in the electric bell. Also such emergency work as crating furniture for moving, setting up stoves, etc. This pertains particularly to the husband but also, in some respects, to the wife.¹
 6. The domestically efficient person should be competent to conduct efficiently the business incident to family life, such as keeping simple accounts, making contracts, or shipping goods under terms as favorable as conditions permit.
- II. The domestically efficient person should be prepared to meet intelligently the problem of rearing children.
1. Should take the social point of view in respect to assuming responsibility for bringing children into the world.
 - a. Should not shirk this responsibility merely for reasons of personal convenience.
 - b. Should not thoughtlessly, and at the expense of society and the child, bring children into being for

¹ For a long list of details under this heading, see Bobbitt's *Curriculum Making in Los Angeles*, pages 11-22.

whom he can not adequately provide or who are destined in advance to a physical handicap. (And should have had the training and instruction necessary to make *a* and *b* function.)

2. Should know the physiology and hygiene connected with childbirth in all its stages. (For the sake of *a* and *b* above and for other reasons).
 3. Should be able, especially in the case of the woman, to take efficient care of children physically. To this end she should have full and practical information on such matters as the following.
 - a.* Bathing, dressing, and otherwise caring for the baby.
 - b.* Dietary of children.
 - (1). Amount of food.
 - (2). Proportion of food elements.
 - (3). Preservation and preparation of food.
 - c.* Diseases of children.
 - d.* The sleep of children.
 - e.* Clothing of children.
 - (1). Effect of exposure. Also of too warm clothing.
 - (2). Effect of tight clothing.
 - (3). Economy in purchasing.
 - f.* Ventilation and temperature.
 4. Should be able to take efficient care of children on the intellectual and moral side.
 - a.* Be prepared to employ proper methods of managing and disciplining children.
 - b.* Have the necessary perspective (knowledge of the psychology of imitation, etc.) to guard children from corrupting influences.
 - c.* To set for them such examples as healthy moral and intellectual growth demands.
 - d.* Be prepared to give such positive instruction as to morals, religion, social conduct, care of health, etc., as ordinarily falls to the home.
- III. The domestically efficient person should be prepared for the "give and take" of family life.

1. Should be prepared to practice such inhibitions as a reasonable consideration for the rights of other members demands, to the end that marital harmony may prevail.
 2. Should (in addition) be ready with active sympathy and co-operation, to the end that the family may develop a dynamic spiritual unity.
 3. Should have an insight into the ethical and sociological principles involved in the disruption of family ties, and be disposed to act accordingly.
- IV. The domestically efficient person should be prepared to choose a mate wisely.
1. To make a sober and rational choice instead of a capricious and accidental one, basing it on such principles as eugenics, social, occupational, and financial considerations, and compatibility of temperament.
 2. To conduct himself or herself properly in courtship.
 - a. Be forewarned and forearmed against the temptations which beset life at this stage.
 - b. Prepared to conform to social conventions pertaining to this type of association, and thus avoid harmful gossip.
 - c. Prepared to employ such tact, and such spirit of mutual "give and take," as would naturally favor the development of friendship, respect, and love.
 - d. Put into proper perspective the breaking of a love match.
 3. To conduct his pre-marital life in such a way as to avoid entanglements prejudicial to the health or happiness of future mate and family, or that would in any way dampen marital love.

(Venereal disease, or love entanglements and dissipation of which one will need to be ashamed later).

V. Vocational Efficiency

A. GENERAL VOCATIONAL FITNESS

1. The vocationally efficient individual must be adapted to his job.

- a. Physically adapted.
 - (1). In size of stature, type of endurance, etc.
 - (2). In health.
 - b. Psychologically adapted. (Different occupations demand different mental traits.)
 - c. Temperamentally adapted.
 - d. Socially adapted. (Some occupations demand a background of breeding almost impossible to develop except in certain social situations; others demand access to capital, etc.)
2. Must possess the power of adaptation.
 - a. Must possess the power of initiative and resourcefulness; that is, such temperament and ability as enable him to cope with emergencies. To this end he should have:
 - (1). A volitional temperament of the active and aggressive type. This is probably largely native but may yield in a measure to training.
 - (2). The *habit* of successful leadership, with the self-confidence normally attending it. This may be reinforced by cultivated and rationalized ideals of initiative.
 - (3). A grasp upon the principles underlying the situation in which the resourcefulness is to function, whereby one is given perspective. (This comes through technical training or technical reading.)
 - (4). Large experience with this type of situation, whereby one accumulates a fund of tested methods of solving its problems.
 - b. He must have such comprehensive grasp upon the general field in which his work lies as will fit him to give assistance to other workmen in need, or to assume supervisory responsibility.
 - c. Must have developed those habits which favor growth and readjustment to changing conditions; as, *e. g.*, that of availing himself of the reading

matter pertaining to his work, or the ideal or habit of keeping open-minded.

- d.* Must be able to readjust himself without too much waste in case of loss of employment in his central work.
3. Must have certain ideals and corresponding practices as follows:

 - a.* Must have the spirit of service.

 - (1). Be eager to render good service for the sake of its reaction upon his own advancement.
 - (2). For the sake of those who directly utilize his services. (Fairness to his employer or his customers.)
 - (3). For the sake of loyalty to society.
 - b.* Such ideals and generalized habits as honesty, promptness, regularity, truthfulness, persistence, system, and caution in judgment.
 - c.* The ideal of efficiency; that is, of economy of time and effort. (Our workmen should catch the ideal of producing the most possible in the time at their disposal, instead of fighting efficiency methods as they have sometimes done.)
 - d.* Enthusiasm, love of work, "professional attitude."
4. He must possess the spirit of economic co-operation.

 - a.* Must have a sane view of his economic relation to others.

 - (1). Toward his employer (the capitalist) if an employee.
 - (2). Toward his employee (the laborer) if an employer.
 - (3). Toward his competitors (and the industrial system involving competition.)
 - b.* Must be ready to co-operate effectively with those who purchase his services.

 - (1). Be ready to obey the orders of his superiors.
 - (2). Be ready to carry out (in addition to (1) above) not only the letter but the spirit of the wishes of his employers, even to the extent of helping them *define* those wishes

APPENDIX A

and adapting details. (Example, a salesman persuades a customer to buy what he needs rather than something that will not answer his purpose, or an architect presses upon his employer a change of plans for the better.)

- (3). Participate wholeheartedly in furthering any reform or advance in the business. (Sometimes employees oppose and handicap reform out of lethargy and a general resistance to change.)
- c. Must co-operate effectively with his fellow craftsmen.
 - (1). Avoid hostility that interferes with work, or even that breeds a spirit which tends to dampen the general enthusiasm. (For example a grouch that puts him out of speaking terms with persons with whom he must work, to the injury of his work.)
 - (2). In addition to (1), must make a positive effort to co-operate and to co-ordinate his work with that of others.
 - (3). Participate as active and effective counselor in the joint deliberations of the industrial or professional group respecting their common policies.
 - (4). Stimulate his associates to greater efficiency.
5. He must conserve his health and strength.
 - a. Must avoid needlessly impairing his health and energy while at work. (Efficiency is impaired by fatigue and needless fatigue lessens production with no compensating gain.)
 - b. Must avoid all dissipation out of work hours that would tend to impair his working efficiency.
6. Must have the ideal of offering his labor or its products in the best market.
 - a. Must have a job of sufficiently recognized social value to pay him a living. (Consider cobblers with oldfashioned methods, or lecturers behind

the times, who hang on to jobs for which society is no longer willing to pay them a living but who, failing to recognize the real cause, complain of their hard luck.)

- b.* In the field of his chosen vocation he must employ his services, or dispose of the products thereof, at that place where the economic return is greatest. (Consider the man who hangs on where his labor is not needed when it would be of value elsewhere, or who insists upon selling his goods in a glutted market because he does not have the initiative to seek a market where there is a shortage of this sort of goods.)
7. He must have a working knowledge of certain elementary subjects.
 - a.* The "tool subjects"—reading, writing, and arithmetic.
 - b.* Business forms—keeping accounts, making contracts, the elements of business law.
8. Must be able effectively to sell his services or the products thereof. (Get a job or sell his goods.)
 - a.* Know how to find an employer or a market.
 - b.* Be able to impress prospective purchasers of his services or his products (employers or customers) with their value.

II. SPECIAL VOCATIONAL FITNESS

Each efficient workman must have acquired the *special* knowledge, habits and skills basic to his particular job. These differ endlessly and the only pedagogical resort is to make a separate analysis for each particular job. Fortunately analyses have been already made for a wide range of jobs by the committee in charge of the Minneapolis Survey of Vocational Education (see report, pages 146-624) and by the Indianapolis Survey Committee.

For getting up these specialized knowledges, habits, and skills there can be no substitute for *intensive* specialized training. Such training must occupy by far the major part in vocational education, greatly over-

shadowing in importance any possible *general* vocational training.

VI. *Training for Moral Efficiency*¹

- I. The psychological phases of morality. These are not radically distinct from each other but shade into each other, so that each contains elements of all the others.
 1. Impulses. A synonym for these is "force" or "motivation." Impulsion rests upon a basis of instinct and is a prerequisite to all activity.
 2. Habits. These come where one, impelled by the force mentioned above, acts a number of times in the same way. They may be
 - a. Habits of action.
 - b. Habits of judgment.
 3. Prejudice (biases) unrationated mental attitudes.
 - a. Taboos—negative attitudes, aversions. They are built up by
 - (1). Contagion.
 - (2). Experience—by which pupils come to despise certain conduct when indulged in by others and then come to take the impersonal viewpoint also when judging themselves.
 - (3). Suggestion.
 - b. Dynamic tendencies—positive attitudes. These also are built up by
 - (1). Contagion.
 - (2). Experience—which the individual has occasion to take pride in his conduct.
 4. Imitations.
 - a. Pride in character. Watchword: "That is not like me."
 - b. Emulation. Watchword: "That is not like my hero."
 - c. Loyalty. Watchword: "That is not like my group."

¹This is not an analysis of the components of morality like those preceding. It is, instead, an analysis of the principles involved in training for morality. Analyses of morality as such have been made by Milton Fairchild, by Sneath and Hodges in their book, *Moral Education in the School*, and by a number of competitors in the contests conducted by the Character Education Institution, Chevy Chase, Washington, D. C.

5. **Conscious ideals.** These are definitely criticised, accepted, and emotionalized ideas. Ideals contain elements of all of the psychological phases in this list.
 6. **Ethical theory**—rational system of ethical laws and principles, moral knowledge, ideas about morality. It may rest upon a consideration of
 - a. Consequences of conduct to the individual in the form of rewards and punishments.
 - b. The principle of universalization.
 - c. The principle of consistency.
 - d. The principle of true self-realization.
- II. Resources of the school for moral training and instruction.
1. School life in and about the school.
 - a. Social conduct on the playground.
 - b. Social conduct in the schoolroom.
 - c. The discipline of the school.
 - d. Pupil co-operation in school government.
 - e. Life of pupil outside of school.
 - (1). His own conduct in this wider sphere.
 - (2). His participation in the life of adults.



APPENDIX B

DETAILED ANALYSIS OF ONE OBJECTIVE OF CULTURAL EDUCATION

The analyses in Appendix A listed the large abilities needed for efficiency in the several areas into which we divided the field. But we must next determine by quantitative research what specifically is involved under each. This will extend the analyses into many times as great detail as that given in the preceding appendix, and set for us very definite aims for each of our procedures. As one example of what such further research will mean, a study of item VI-3 from our analysis of culture, noted on page 383, is given below.

The item referred to is: "*At least superficial acquaintance with a wide variety of matters, so as not to be entirely ignorant of practically anything met with in reading or heard about, but able to "place" them at least roughly in their setting.*" For example, a wag of a friend of mine was asked, "What is the capital of Rhode Island?" He replied, "Rhode Island needs no capital; it is ruled by providence." If one is to get the point of this joke he must know the name of the capital of this state. In the moving picture, "Polly in the Follies," a brief scene from *Romeo and Juliet* is staged but without the setting. To appreciate this, one must know that tragedy. Sinclair Lewis, in *Main Street*, represents Bjornstam as saying: "This foreman . . . expects to reform everything from deforestation to nosebleed by saying phrases like 'surplus value'. . . . But same time he's a Plato J. Aristotle compared with people like Ezra Stowbody or Professor Mott." The humor of this expression is missed if one does not know the technical use of "surplus value" and something about the standing of Plato and Aristotle among philosophers. If one can place in their proper setting the references encountered in his reading or conversation, that fact gives him at least a fleeting sense of pleasure and mastery; if he is ignorant of their meaning, he experiences a certain sense of annoyance and discomfort. To be able thus to "place"

references, and to get the satisfactions arising therefrom, is an important element of culture.

Now *what* is the information that is needed for this purpose? In order to get an answer to this question my classes searched through the most widely read literature of the present to determine what are the references actually made in it, for it is in connection with such literature that the typical person will have occasion to get the satisfactions in question. Mr. H. F. Jenkins, of the Little, Brown and Company, had made a study of what books had been most widely read within recent years. From this we drew up a list of twenty-six "best sellers," including such books as *Main Street*, *Four Horsemen of the Apocalypse*, *Shepherd of the Hills*, *Great Heart*, *The River's End*, *Heart of the West*, and *The Inside of the Cup*. Each of these books was then carefully read by a student and a list made of the references in it the understanding of which called for information some people might not possess, but not including strictly local references and counting duplicates only if they occurred in a new setting. Besides these twenty-six novels there were covered in the same way twenty-five short stories, four thousand jokes, two thousand comic pictures in the newspapers, and the legends of ten moving picture shows. These many lists were then telescoped and the number of times each item occurred thus determined. The most frequently mentioned—New York City—had occurred ninety-six times and the others ranged from that down to one time. Motion picture shows and short stories were added until the highest one stood at exactly one hundred. This ought to give a pretty fair sampling of the reading the rank and file of people do, and hence indicate rather reliably the background of information needed for the maximum appreciation of this reading. Our findings follow below.

LIST OF REFERENCES MET IN POPULAR LITERATURE

New York City, occurred	100	times	Boston.....	21	times
Germany.....	55	"	Rome.....	20	"
France.....	54	"	Shakespeare.....	19	"
England.....	50	"	George Washington.....	19	"
The Bible.....	44	"	Henry Ford.....	18	"
London.....	43	"	Cæsar.....	18	"
Paris.....	30	"	New England.....	17	"
Chicago.....	29	"	Lincoln.....	16	"
Europe.....	28	"	Congress.....	16	"
Ireland.....	24	"	Greece.....	16	"
China.....	23	"	Italy.....	15	"

LIST OF REFERENCES MET IN POPULAR LITERATURE—Continued

Russia	15	times	Spain	11	times
Scotland	15	"	Rheumatism	11	"
California	15	"	Canada	11	"
Sweden	14	"	Africa	10	"
Australia	14	"	Civil War	10	"
Britain	14	"	Indians	12	"
Japan	13	"	India	12	"
Kansas	13	"	Egypt	11	"
Philosophy	13	"	Persia	11	"
New York State	12	"	Moses	10	"
Yale	13	"	Texas	10	"
San Francisco	12	"	Atlantic	9	"
Socialist	12	"	Belgium	9	"
Mark Twain	12	"	Napoleon	9	"
Harvard	12	"	Philadelphia	9	"
Pullman	12	"	Berlin	9	"
Turkey	11	"	Arab	9	"

Following occurred 8 times each:

Broadway	Israel	Oriental	Washington City
Florida	Kaiser	Ten Commandments	

Following, 7 times each:

Adam	Gen. Grant	Mexico	Rocky Mount's
Christian Science	Homer	Oregon	S. America
Christ	Indiana	Paul	St. Louis
Columbus	Kentucky	Psychology	Victorian
Dakotas	Massachusetts		

Following, 6 times each:

Arkansas	Dickens	Norwegian	Switzerland
Asia	Fifth Ave.	Noah	X-Ray
Bohemia	Judas Iscariot	Oxford University	Alps
Cambridge Un.	Los Angeles	Peter	Salvation Army
Cleopatra	Lloyd George	Pittsburg	Utopia
Crown Prince	New Orleans	Revolutionary War	

Following, 5 times each:

Architecture	Alabama	Prince	Bernard Shaw
Cathedral	Count	Solomon	Spartans
Darwin	Detroit	Tennyson	Virginia
Garden of Eden	Georgian Styles	Herbert Spencer	Sphinx
Golf	Joan of Arc	Bishop	Latin
Juliet	Mississippi River	Waterloo	Cuba
Niagara	Pennsylvania	North Carolina	Hamlet
Red Cross	Romeo		

LIST OF REFERENCES MET IN POPULAR LITERATURE—*Continued**Occurred 4 times each:*

Alaska	Anarchist	Maryland	Marseillaise
Arizona	Atheist	New Jersey	Nero
Austria	Buffalo	Oklahoma	Ohio
Lord Byron	Buenos Aires	Omaha	Othello
Boulogne	Chemistry	Palm Beach	Poland
Capitalist	Connecticut	Prussia	Roosevelt
Corn Exchange	Cincinnati	San Diego	Sahara Desert
Declaration of Ind.	Daniel	Walter Scott	Shylock
Diana	Dublin	Sociology	St. Petersburg
Eve	Doug. Fairbanks	Tennessee	Uncle Tom's Cabin
Faust	Idaho	Vienna	Venice
Iowa	Jonah	Zeppelin	Hindu
Kipling	Kansas City	Plato	Shelley
Long Island	Minnesota	Burns	Insomnia
Mississippi	Missouri	Duke	The Thames
Maine	Methuselah	Prussia	Calais

Occurred 3 times each:

North Pole	No Man's Land	Carlyle	Chautauqua
Non-Partisan League	Olympians	Cape Cod	Constitution
Palestine	Parliament	Cocktail	Cleveland
Pasadena	Plymouth	Clemenceau	Chopin
Portia	Portuguese	Champs Elysées	Dante
Proletariat	Polo	Lord Derby	Economics
Richard of Eng.	Robinson Crusoe	Edison	Futurist
Scandinavians	Spiritualism	George Eliot	Gaelic
Tokio	Vassar	Georgia	Goethe
Vermont	Winnepeg	Gothic	Gettysburg
Winchester	Wall Street	Hercules	Henry VIII.
William the Conqueror	Rossetti	Illinois	Indes
Radical	Cairo	Jericho	Junkers
Ishmael	South Carolina	Knight	Charles Lamb
Atlas	Apollo	Luther	Materialism
Asquith	Alberta	Milton	Medici
Biology	Blaine	Montana	Mormon
Babes in the Wood	Botany	Morocco	Mendelssohn
Robt. Browning	Buddha	Mohammed	

Occurred 2 times:

Andes	Anatole France	Baltimore	Phillips Brooks
Anglo-Saxon	Appendicitis	Bunker Hill	Luther Burbank
Argentine	Aristotle	Buckingham Palace	Brutus
Am. Medical Assn.	Annapolis	Bridge (game)	Bacteriology
Matthew Arnold	Arabian Nights	Carmen	Cambridge, Mass.
Atlantic City	Abraham	Charybdis	Colorado
Adenoids	Prince Albert	Coat of Arms	House of Commons
Anatomy	Anti-freeze mixture	Concord	Crusades
Aneroid barometer	Babylon	Czecho-Slovakia	Chile
Bagdad	Balzac	Charlie Chaplin	Oliver Cromwell
Bernhardt	Barnum	Cicero	Chess

LIST OF REFERENCES MET IN POPULAR LITERATURE—Continued

Occurred 2 times

Cactus	Crescendo	North Sea	Norfolk
Cootie	Dancing Bacchante	O'Henry	Occidental
Dead Sea	Des Moines	Orthodox	Pacific Ocean
Denver	Duluth	Panama	Puritan
Dutch	Emerson	Phœnix	Peru
Epicurus	Downing St.	Princeton	Prince of Wales
Fourth Dimension	Gen. Foch	Edgar A. Poe	Pocahontas
Franklin	Georgette Crepe	Pisgah	Rabelais
King George	Gibbon	Renaissance	Riverside Drive
Grand Rapids	Greenland	Rhinoceros	Rock of Ages
Goliath	Hawthorne	Romain Rolland	Rolls-Royce
Harrisburg	David Harum	Rockefeller	Sarah
Henry IV.	Handel	Sappho	Science
Hot Springs	Hohenzollern	San Antonio	Scylla
Hudson River	Huxley	South Kensington	Billy Sunday
Ibsen	Idylls of the King	Symphony	Syndicalism
Internationale	Robt. Ingersoll	Swinburne	South Africa
Jamaica	Jerusalem	Syria	Titanic
Journalist	John Bull	Tolstoi	Ulysses
Keats	Knights of Pythias	Utah	Unionists
Lexington	King Lear	Thorstein Veblen	Voltaire
Longfellow	Longshoreman	Victoria Station	Vergil
Locomotor Ataxia	Lotus Eaters	Henry Van Dyke	Virginia Reel
Lichee Nuts	Robert E. Lee	Washington Mon- ument	Martha Wash- ington
Liège	Lohengrin	Wellesley	Whittier
Mark Antony	Minneapolis	Wisconsin	Winchester gun
Mary Magdalene	Metereological Dept.	Wilhelmstrasse	West Virginia
McKinley	Marconi	Washington State	William Tell
Michigan	Marie Antoinette	White House	Wales
J. P. Morgan	Manhattan	Wyoming	Wagner
Moorish	Miami	Brigham Young	Zoo
Marble Faun	Millenium	Nietzsche	Stoic
Nat. Geographical Mag.	Nevada	Nile	Alexandria
Newfoundland Dog	New Hampshire	Brazil	Beethoven
Sir Isaac Newton	Nemesis	Don Quixote	Schopenhauer
Naples	Naturalization papers	Washington Irving	
		Hawaii	

Sampling (one tenth) from items occurring only once:

Albuquerque	Bowery	Port Said	Rhine
Antwerp	B. V. D.	Roulette	A. Sabatier
Brooklyn	Chippawas	San Luis Obispo	Stone age
Caspian Sea	Colonel Cody	Stockbridge	Steam crane
Cricket	Alice Cary	Submarine	Sistine Madonna
Cloture	Dolls House	Thoreau	Toreador Song
Dynamo	Elaine	Toast master	Delos
Esquimos	Newman	Fra Angelico	Grote
Oxide	Pascal	Fort Harrison	Bat. of Hastings
Am. Fed. of Labor	Pelican	Pagliacci	Hanseatic League

LIST OF REFERENCES MET IN POPULAR LITERATURE—*Continued**Sampling (one tenth) from items occurring only once:*

Lalla Rookh	Liverpool	William Winter	Madame Butterfly
Hypo	Sale of indulgences	Nat. Goodwin	Edgar Lee Masters
William James	Joseph	Twelfth Night	Nirvana
Landseer	Uncle Joe	House of Lords	Wild clematis
Monte Carlo	Caligula	Bat. of Marathon	Garibaldi
Mascagni	Rubens	Michelet	Nymph
H ₂ SO ₄			

SIGNIFICANCE.—Such a list as the above contains far reaching implications for curriculum construction, or for the distribution of emphasis in teaching. How many of the references fall within the realm of history? geography? literature? music? What fields that are not commonly covered by elementary and secondary schools have many references? Is the remedy to offer work in these fields? Measure the importance of these stray references in terms both of number of them and frequency with which each occurs.

Within any one field, as history, what is the distribution of references (both number and value as measured by frequency with which each occurs) to different periods—ancient, mediæval, modern, European, American, political, economic? Same with literature, music, geography, etc. What modifications of present practice are suggested? A knowledge of the items of this list, and for the purpose here in question, is only one of very many needed abilities to which these several subjects could contribute. Other items may be needed for other purposes. Look through the several analyses of efficiency and try to decide whether the items useful here would be about the same as those useful for other purposes. Of course the only way really to know what distribution of emphasis the other purposes require is to make an analysis of each similar to this one. Then the several demands could be put together, balanced against each other according to relative importance, and an optimum curriculum worked out on their basis.

APPENDIX C

TEST OF GENERAL INFORMATION WITH SOCIOLOGICALLY DETERMINED WEIGHINGS

On page 392 it was said that we shall ultimately need to have instruments for measuring achievement which are far more analytic than the present standardized tests. As long as we continue to measure for achievement merely in the lump, the mass of teachers will continue to guide themselves by "general aims"; as soon as we come to use tests for each element separately, the attention of teachers will be directed toward these specific abilities, and the setting up of definite aims for their realization will be strongly motivated. Educational sociologists should be interested in such tests for two reasons:

1. *As tests.* They will enable us to know how far we are succeeding and how far failing. We shall introduce definiteness into our work as soon as we begin to measure. Not only, however, do we need standardized tools for measuring our progress in school but also for the sort of researches called for in chapter 19. We can make little progress there until we have them.

2. *As devices for the control of teaching.* In large measure teachers will teach what they know will be tested for. If minute and trivial details are asked for in tests, these will be taught in preparation; if important things are tested for, important things will be taught. For the sake of controlling teaching in the interests of greater purposiveness, tests should be so constructed that they

- a. Will compel teachers to set up *detailed and specific* objectives.
- b. Will test for, and motivate the teaching of, what is actually needed in life.
- c. Will motivate the distribution of emphasis according to the principle of relative importance.

Below is given an example of one such test. It is a test of information made from half of the items listed in Appendix B that had occurred twice or more, and is intended to measure in respect *only*

to the item of culture there in question. Analogous tests are needed for each of the other items. For the sake of motivating the distribution of teaching emphasis according to relative importance, the elements of the test are weighted according to frequency of recurrence, such frequency being taken as a measure of importance. There is a movement away from weighting in tests, and where such weightings are based on difficulty the writer is heartily in sympathy with the movement; for weighting on difficulty involves merely going in a circle. But the customary arguments against weighting have no application whatever when the purpose is the *control of teaching* (rather than the sectioning of a class), and where the weightings are based on relative importance rather than on relative difficulty.

In this test we have not taken a simple count of recurrence as the measure of importance but, instead, the Napierian logarithm of such count. Following are the reasons for this. (But it should be noticed that, while these reasons apply to this situation, they would certainly not apply to all situations where frequency and importance are related. Often, as in the case of materials used as tools, importance would vary according to direct count of occurrences).

1. The curve of learning and the curve of forgetting conform largely to the logarithmic curve.

2. According to Weber's, and especially Fechner's, Law the intensity of a sensation varies as a logarithmic function of the stimulus, and possibly the higher mental processes follow a like law.

3. In economics, the curve for increasing utility in the consumption of a certain kind of economic goods is a logarithmic one. Two dresses are worth more than one, but not twice as much in terms of satisfactions derived from their possession. Similarly five, ten, twenty, fifty dresses are worth more than a smaller number but with a progressively decreasing differential.

4. The case of satisfactions from placing references seems to be analogous to the above situations. The first time one meets a reference to Monte Carlo it gives him great pleasure to be able to understand it in terms of previously acquired information. The second time he gets some added pleasure, but the two do not give him twice as much satisfaction as the first. Each succeeding time he meets the item it becomes more commonplace and he disposes of it

with less explicit consciousness and less pleasure. Thus his total satisfactions increase with the number of times he has occasion to place the reference but not in direct ratio to the frequency.

TEST OF GENERAL INFORMATION WITH SOCIOLOGICALLY
DETERMINED WEIGHTINGS

Series A. Form I

Part I—Multiple Choice Test

INSTRUCTIONS.—Following each of the items mentioned below four things are proposed, only one of which is correct. You are to make a check mark before one and only one in each set. You should move along as rapidly as you can, though not so hurriedly as to mark carelessly. SCORING. At the head of each item is given the value of a correct response to it. The score earned by any one on this part of the test is the sum of all the credits on all the items which he has marked correctly.

VALUE 46

(OCCURRED 100 TIMES)

The reason why New York City appeals to so many people is

- (a). because of its excellent bathing facilities.
- (b). because it is the capital of the State of New York.
- (c). because of its manysided life.
- (d). because the Statue of Liberty is there.

VALUE 39

(OCCURRED 50 TIMES)

England is

- (a). a country in South America.
- (b). the principal country of the British Empire.
- (c). the north-eastern part of the United States.
- (d). a buffer state lying between Germany and France.

VALUE 38

(OCCURRED 43 TIMES)

London is

- (a). the capital city of the British Empire and the largest city in Europe.
- (b). the port in France where our soldiers landed.
- (c). an English poet.
- (d). a town in Scotland.

Paris is widely known because

- (a). it is the greatest sea port in Europe.
- (b). it is located near New York.
- (c). it is the place where Lenin and Trotsky live.
- (d). it is the world's fashion center.

VALUE 33

(OCCURRED 22 TIMES)

The people who live in China

- (a). make many steam engines and ship them to this country.
- (b). have long been a very backward people in business and government.
- (c). are cannibals who eat foreign missionaries.
- (d). have composed the world's greatest music.

VALUE 30

(OCCURRED 20 TIMES)

The most ancient and renowned city of Europe is

- (a). Paris
- (b). London
- (c). Rome
- (d). Moscow

VALUE 29

(OCCURRED 19 TIMES)

Shakespeare was

- (a). an ancient shoe cobbler who made up many wise sayings which people still quote.
- (b). a preacher who lived in England many years ago and translated the Bible.
- (c). the author of a number of very famous dramas (plays).
- (d). a quaint but popular poet who lived in America a hundred years ago.

VALUE 29

(OCCURRED 18 TIMES)

Henry Ford is known as

- (a). a very prominent member of Congress.
- (b). the manufacturer of a cheap automobile.
- (c). the manager of the moving picture industry.
- (d). the owner of a great store in New York City.

VALUE 29

(OCCURRED 18 TIMES)

Cæsar is

- (a). the name of a Latin grammar.
- (b). a great statesman, soldier, and writer of Ancient Rome.

- (c). the former emperor of Russia.
- (d). the king of Palestine at the time Jesus lived.

VALUE 28

(OCCURRED 16 TIMES)

The American who is best known for kindheartedness and readiness to treat his enemies fairly is

- (a). George Washington.
- (b). Andrew Jackson.
- (c). Theodore Roosevelt.
- (d). Abraham Lincoln.

VALUE 27

(OCCURRED 15 TIMES)

Tourists now go to California chiefly

- (a). because of its gold mines.
- (b). because of its mild and healthful climate.
- (c). because it is a great manufacturing state.
- (d). because it is less than a thousand miles from New York.

VALUE 26

(OCCURRED 14 TIMES)

Sweden is

- (a). a country in South America.
- (b). a country in southern Europe.
- (c). a country in northern Europe.
- (d). one of the divisions of Canada.

VALUE 26

(OCCURRED 14 TIMES)

Australia is

- (a). a large island south-east of Asia, belonging to the British Empire.
- (b). a part of Canada.
- (c). a small island in the Pacific Ocean.
- (d). a country in Africa.

—Total score on the multiple choice test.

Part II—True-False Test

INSTRUCTIONS.—Of the following statements about half are true and half false, but they are arranged entirely promiscuously. You are asked to draw a straight line to the right of the word TRUE if

you believe the statement true; to the right of the word **FALSE** if you believe the statement untrue. Thus:

The President of the United States has his office in the War Department Building. TRUE
FALSE--

If you do not know whether the statement is true or false, guess. You should move along through the test as rapidly as you can, but not so rapidly as to mark carelessly. **SCORING.** At the head of each group is a number. This gives the value of a correct response for each of the items in the group. But credit is not necessarily given for each mark that is right, since, if any have been marked wrongly, the assumption is that some of the rights have been guessed rightly. It is assumed that, in the guessing process, as many have been guessed rightly as wrongly, so that each wrong offsets a right. One's score in problems right is therefore the number of rights *minus the number of wrongs*. No account is taken either way of those that have not been marked at all. For the score in each group multiply the difference between the number of rights and wrongs by the weighting value given at the top of the group. For the total score on the true-false test, add these products together. The score on the whole test is the sum of the scores on Part I and on Part II. A perfect score would be 2936.

VALUE 23

(OCCURRED 9 TO 13 TIMES)

- | | |
|---|---------------|
| 1. Only the wealthy can ride on a pullman because it costs ten cents a mile extra. | TRUE
FALSE |
| 2. Philosophy is the study of anything that is mysterious. | TRUE
FALSE |
| 3. Yale is a university located in New Haven, Conn. | TRUE
FALSE |
| 4. Socialism is the doctrine that there should be no government, but that the property of the rich should be equally divided among all. | TRUE
FALSE |
| 5. Mark Twain is an American humorist who died recently. | TRUE
FALSE |
| 6. The Civil War was a war between the states of this country brought on chiefly by the slavery question. | TRUE
FALSE |
| 7. India is an island in the Atlantic Ocean a short distance from the Florida coast. | TRUE
FALSE |
| 8. Persia is a country in eastern Asia the history of which runs back into ancient times. | TRUE
FALSE |

- | | |
|---|-------|
| 9. Spain is a republic located just north of Italy. | TRUE |
| 10. Belgium assisted Germany in the World War. | FALSE |
| 11. Turkey is located partly in Europe and partly in Asia. | TRUE |
| 12. Moses led the Children of Israel out of Egypt to the border of the land of Canaan. | FALSE |
| 13. The central part of Africa is highly developed industrially. | TRUE |
| 14. Napoleon was a French general and statesman under whose leadership France made war on many countries of Europe. | FALSE |

—Number of rights minus number of wrongs in above group.

—Score on above group (twenty-three times number of rights-minus-wrongs).

VALUE 19

(OCCURRED 6 TO 8 TIMES)

- | | |
|---|-------|
| 1. Arkansas is one of our less developed states bordering on the Mississippi River. | TRUE |
| 2. Asia is the largest of the continents but its people, as a whole, are less highly civilized than Europeans. | FALSE |
| 3. Hamlet is the name of a ghost in one of Ibsen's plays. | TRUE |
| 4. Christian Science teaches that there is really no such thing as sickness. | FALSE |
| 5. Cleopatra was a queen of Persia who led her own army and defeated the Romans. | TRUE |
| 6. The Crown Prince was one of the generals in the French army during the recent World War. | FALSE |
| 7. The Dakotas are mountains in the western part of our country. | TRUE |
| 8. Dickens was an Englishman who wrote novels about seventy-five years ago, whose books are still considered excellent. | FALSE |
| 9. Fifth Avenue, New York, is a notorious slum district, on which most of the poorest people of the city live. | TRUE |
| 10. Homer was a very ancient and very great Greek poet. | FALSE |
| 11. Indiana is a good state for agriculture. | TRUE |
| 12. Israel was one of the names of Jacob which was later used for all of the "Chosen People" because they were said to be descendants of Jacob. | FALSE |
| 13. Juliet is a very romantic character in one of Shakespeare's plays. | TRUE |
| | FALSE |

- | | |
|---|---------------|
| 14. Judas Iscariot was Abraham's brother, but he was a bad man who showed his meanness by choosing the best land for himself. | TRUE
FALSE |
| 15. Los Angeles is in the northern part of California, where the climate is not so pleasant. | TRUE
FALSE |
| 16. Although Massachusetts is one of the oldest states of the union, it is also one of the smallest. | TRUE
FALSE |
| 17. A Norwegian is a savage found in the jungles of Africa. | TRUE
FALSE |
| 18. We call the people who live in Asia "orientals." | TRUE
FALSE |
| 19. Oxford is a very old and famous university in England, and one of two such ancient English universities. | TRUE
FALSE |
| 20. Peter was the most impulsive of the disciples of Jesus, that is, the one who got excited most quickly. | TRUE
FALSE |
| 21. Psychology is a study that enables one to analyze people's thoughts by just looking at them carefully. | TRUE
FALSE |
| 22. Very few people who go west from Philadelphia or Columbus pass through St. Louis. | TRUE
FALSE |
| 23. It would not pay a tourist to Europe to go through Switzerland, since there is nor much to be seen there anyway. | TRUE
FALSE |
| 24. The Ten Commandments were the instructions Jesus gave his disciples just before his death. | TRUE
FALSE |
| 25. The Alps are magnificent mountains in Spain. | TRUE
FALSE |
| 26. Utopia is a book written long ago by Sir Thomas More describing an imaginary land perfect in every respect. | TRUE
FALSE |

—Number of rights minus number of wrongs in above group.

—Score on above group (nineteen times number rights-minus-wrongs).

VALUE 16

(OCCURRED 5 TIMES)

- | | |
|--|---------------|
| 1. Cuba is an island off the coast of Florida and under the protection of the United States. | TRUE
FALSE |
| 2. Waterloo is the name of the dykes (banks) they use in Holland to keep the water from overflowing the land. | TRUE
FALSE |
| 3. Herbert Spencer was an Englishman who wrote very extensively on Philosophy and Sociology about fifty years ago. | TRUE
FALSE |
| 4. The Spartans were the jesters that kings used to keep to entertain themselves. | TRUE
FALSE |
| 5. Bernard Shaw is a great preacher of London who visited the United States a few years ago. | TRUE
FALSE |
| 6. On account of the fact that Pennsylvania is a mining state, there are fewer foreigners there than in any other state. | TRUE
FALSE |
| 7. Niagara is a gigantic water fall between Lake Erie and Lake Ontario. | TRUE
FALSE |

- | | |
|---|-------|
| 8. Jonah was with the other disciples when they caught such a large number of fish in their net that the net broke. | TRUE |
| 9. Joan of Arc is also called "The Maid of Orleans" and once bravely led the French armies against the English. | FALSE |
| 10. Golf is a game played on the snow with very long, wooden skates. | TRUE |
| 11. The Garden of Eden is the place where Noah's ark landed. | FALSE |
| 12. To be a count one must be first cousin to a king. | TRUE |
| 13. A cathedral is a church in Europe in which only catholics worship. | FALSE |
| 14. The population of Alabama is about half negro. | TRUE |
| 15. Architecture is the science of designing (planning) buildings. | FALSE |
| —Number of rights minus wrongs in above group. | TRUE |
| —Score on above group sixteen times number of rights- minus- wrongs). | FALSE |

VALUE 14

(OCCURRED 4 TIMES)

- | | |
|--|-------|
| 1. Although Alaska extends northward from the United States, you can get to any part of it without going outside of United States territory. | TRUE |
| 2. An anarchist is a person who believes there should be no organized government. | FALSE |
| 3. Sociology studies human beings as they live and act in groups. | TRUE |
| 4. Buffalo is in the central part of the state of New York. | FALSE |
| 5. Byron was an impulsive, pugnacious poet of a century ago, and very popular in his own day. | TRUE |
| 6. Shelley, a friend of Byron, was even rougher in manner, and harsher in the verses he wrote, than Byron. | FALSE |
| 7. Buenos Aires is one of the important cities of Brazil. | TRUE |
| 8. A capitalist is a man or woman who has money to invest. | FALSE |
| 9. Connecticut is one of the New England states. | TRUE |
| 10. Wall Street is famous because a number of the greatest retail stores in New York are located on it. | FALSE |
| 11. Cincinnati is a large city in southwestern Ohio. | TRUE |
| 12. The Corn Exchange is a market place in Chicago where grain is sold. | FALSE |

- | | |
|--|-------|
| 13. The Declaration of Independence is the paper by which Lincoln freed the slaves. | TRUE |
| 14. Diana was the goddess of hunting in Roman mythology. | FALSE |
| 15. Eve was the wife of Lot, who was turned into a pillar of stone. | TRUE |
| 16. Douglas Fairbanks is a famous baseball pitcher. | FALSE |
| 17. Faust is the name of a great poem written by Goethe. | TRUE |
| 18. Idaho is located in the Rocky Mountain region. | FALSE |
| 19. Kipling is a popular English writer of novels, short stories, and verse. | TRUE |
| 20. Much wheat is raised in Minnesota. | FALSE |
| 21. Since Mississippi is engaged mostly in the raising of wheat, very few negroes live there. | TRUE |
| 22. Maryland lies between Virginia and North Carolina. | FALSE |
| 23. The Marseillaise is the French national song. | TRUE |
| 24. Nero was a Roman emperor who persecuted the Christians. | FALSE |
| 25. Palm Beach is on the Atlantic coast in New Jersey, near Atlantic City. | TRUE |
| 26. Poland is now a part of Russia. | FALSE |
| 27. Shylock is a Jew in one of Shakespeare's plays, who gets into trouble over a loan he has made. | TRUE |
| 28. St. Petersburg was formerly the capital of Russia and is now called Petrograd. | FALSE |
| 29. Uncle Tom's Cabin is a slavery story written by Harriet Beecher Stowe. | TRUE |
| 30. Venice is a city in Austria. | FALSE |
| 31. Plato was a great philosopher of ancient Greece who taught that all reality is striving to copy perfect, ethereal "ideas." | TRUE |
| 32. Calais is a city in England located on the Strait of Dover. | FALSE |

—Number of rights minus number of wrongs in above group.

—Score on above group (fourteen times number of rights minus wrongs).

VALUE 11

(OCCURRED 3 TIMES)

- | | |
|--|-------|
| 1. Apollo was a Greek god noted for his beauty and his musical ability. | TRUE |
| 2. Asquith is an English statesman who has been a strong friend and staunch supporter of Lloyd George. | FALSE |
| 3. Alberta is a little country in southern Europe. | TRUE |
| 4. James G. Blaine was a prominent American statesman of about forty years ago. | FALSE |
| 5. "Babes in the Woods" is a title of a picture painted by one of our modern artists. | TRUE |
| 6. Botany is the study of plant forms. | FALSE |
| 7. Buddha was a prophet in India and the founder of a religion. | TRUE |
| 8. Carlyle was an English writer of very patient and lovable disposition. | FALSE |
| 9. The constitution is the document that defines the form and the powers of our government. | TRUE |
| 10. Clemenceau was head of the French government (premier) during the time when the peace treaty was made between Germany and the Allies. | FALSE |
| 11. Chopin was a painter who lived in France during the past century. | TRUE |
| 12. Champs Élysées is a famous theater in Paris. | FALSE |
| 13. Dante was the god of thunder in Greek mythology. | TRUE |
| 14. The battle that many historians think decided the outcome of the Civil War was fought at Gettysburg. | FALSE |
| 15. Hercules was the brave leader of the Greeks at the Siege of Troy. | TRUE |
| 16. Palestine is often called the Holy Land. | FALSE |
| 17. When Joshua had led his army around Jericho as the Lord had commanded him, the walls of the city fell down so that his army could easily capture it. | TRUE |
| 18. Charles Lamb was an English writer who wrote high class humorous essays and retold the stories of Shakespeare's plays. | FALSE |
| 19. Materialism is the doctrine that the finest thing in the world is great thoughts. | TRUE |
| 20. Milton was a writer of popular, but very light, stories and cheap but catchy jingles in verse. | FALSE |
| 21. The Medici were enlightened rulers in Florence at the time of the Revival of Learning in Italy. | TRUE |
| | FALSE |

- | | |
|--|---------------|
| 22. A cocktail is a certain trick that gamblers use in a card game. | TRUE
FALSE |
| 23. The Mormons are a religious sect founded by Joseph Smith which has taught and practiced polygamy—that is, one man to have more than one wife. | TRUE
FALSE |
| 24. Morocco is a kind of shawl made in Turkey. | TRUE
FALSE |
| 25. "No-man's land" is an expression recently used for land in this country never taken up by settlers. | TRUE
FALSE |
| 26. The Non-Partisan League is the name of a new political organization formed all over the country to fight the Anti-Saloon League. | TRUE
FALSE |
| 27. Parliament is the legislative body of England that corresponds to our congress. | TRUE
FALSE |
| 28. The Portuguese are a people who live in a small country just to the West of Spain. | TRUE
FALSE |
| 29. The proletariat is a class of people, mostly living in Europe, who hide in the mountains and rush out from there to rob the people in the country. | TRUE
FALSE |
| 30. Tokio is the capital city of Japan. | TRUE
FALSE |
| 31. Vassar is a famous medical school in Boston. | TRUE
FALSE |
| 32. Vermont is the most nearly level country of all New England States. | TRUE
FALSE |
| 33. Winnipeg is the center of an excellent wheat growing section of Canada. | TRUE
FALSE |
| 34. William the Conqueror was a king in Greece who started out to conquer the world. | TRUE
FALSE |
| 35. South Carolina is a thoroughly typical southern state. | TRUE
FALSE |
| 36. Barnum was a humorous lecturer very popular in this country thirty years ago. | TRUE
FALSE |
| 37. Rolls-Royce is one of the expensive makes of automobiles. | TRUE
FALSE |
| 38. The Titanic was sunk by a German submarine during the war. | TRUE
FALSE |

—Number of rights minus number of wrongs in above group.

—Score on above group (eleven times number of rights-minus-wrongs).

VALUE 7

(OCCURRED 2 TIMES)

- | | |
|---|---------------|
| 1. The Andes Mountains stretch along the Pacific coast of South America, usually back only a short distance from the coast. | TRUE
FALSE |
| 2. Anatole France was a leading member of the French Chamber of Deputies during the World War. | TRUE
FALSE |

- | | |
|--|---------------|
| 3. Throughout the middle ages Aristotle was considered the greatest of philosophers, and is still considered great. | TRUE
FALSE |
| 4. The American Medical Association is an organization of the physicians and surgeons of this country. | TRUE
FALSE |
| 5. Matthew Arnold is better known for his novels than for any of his other work. | TRUE
FALSE |
| 6. The Arabian Nights were an army of nobles in Arabia who once made war on the English. | TRUE
FALSE |
| 7. If one has adenoids they can be readily seen by looking into the mouth, even without a tongue depresser. | TRUE
FALSE |
| 8. An anti-freeze mixture is put into the radiator of an automobile during the winter time. | TRUE
FALSE |
| 9. An aneroid barometer operates with alcohol instead of mercury. | TRUE
FALSE |
| 10. Babylon was a great city near the Holy Land, the inhabitants of which sometimes warred upon the Jews. | TRUE
FALSE |
| 11. Balzac is considered the greatest novelist of France. | TRUE
FALSE |
| 12. Baltimore is a great fishing place because it is located directly on the Atlantic Ocean. | TRUE
FALSE |
| 13. The Bunker Hill Monument is at Boston. | TRUE
FALSE |
| 14. Luther Burbank is a professor of Agriculture at the University of Oregon, whose fame rests on his having discovered a fertilizer that will greatly increase crops. | TRUE
FALSE |
| 15. Bridge is a parlor game played with dice. | TRUE
FALSE |
| 16. Charybdis was a monster of Greek mythology who lay by the Strait of Messina and, by sucking in and belching out water, made the passage extremely dangerous for sailors. | TRUE
FALSE |
| 17. A coat of arms is a collection of old weapons handed down from father to son among the English nobility. | TRUE
FALSE |
| 18. The Crusades were expeditions European armies made, about eight hundred years ago, for the purpose of recapturing the Holy City from the Turks. | TRUE
FALSE |
| 19. Czecho-Slovakia is a country in southern Europe brought into existence by the World War. | TRUE
FALSE |
| 20. Charlie Chaplin is a famous motion picture actor. | TRUE
FALSE |
| 21. Because he was a selfish but powerful man, Oliver Cromwell had himself crowned king of England. | TRUE
FALSE |
| 22. "Crescendo" is an expression used in connection with the crowning of a king. | TRUE
FALSE |
| 23. A cootie is about as big as a small mouse. | TRUE
FALSE |
| 24. Fishing is good in the Dead Sea because the people who live near its shores do not take any interest in fishing. | TRUE
FALSE |

- | | |
|--|---------------|
| 25. The system of astronomy which Ptolemy worked out is still generally accepted. | TRUE
FALSE |
| 26. Des Moines is a city in Iowa. | TRUE
FALSE |
| 27. The Dutch are the people who occupy the Netherlands. | TRUE
FALSE |
| 28. Emerson was a very popular writer but his books do not have a good moral influence on those who read them. | TRUE
FALSE |
| 29. Epicurus was a very strict moralist and taught that one should never allow pleasure to interfere with one's duty. | TRUE
FALSE |
| 30. Diplomatic discussions are often conducted in London on Downing Street. | TRUE
FALSE |
| 31. We see objects as having three dimensions (length, width, and depth) but many mathematicians say there is a fourth dimension in addition to these three. | TRUE
FALSE |
| 32. General Foch was urged as commander in the World War but was too old and was not given the place. | TRUE
FALSE |
| 33. Georgette crepe is made of a very fine quality of linen. | TRUE
FALSE |
| 34. Harrisburg is in southern New York on the Lehigh Valley Railroad. | TRUE
FALSE |
| 35. The Dancing Bacchante is a poem written by Walt Whitman. | TRUE
FALSE |
| 36. David Harum is a popular story written by Edward N. Westcott, the hero of which is a shrewd horsetrader. | TRUE
FALSE |
| 37. Handel is the composer of the oratorio, "Messiah." | TRUE
FALSE |
| 38. A Hohenzollern is any member of the merchant class in Germany. | TRUE
FALSE |
| 39. Ibsen is a Scandinavian dramatist who used dramas to set forth social teachings. | TRUE
FALSE |
| 40. Idylls of the King is a long poem written by Tennyson and relating the stories of King Arthur's court. | TRUE
FALSE |
| 41. Robert Ingersoll was a traitor who attempted to betray this country at the time of the Mexican War. | TRUE
FALSE |
| 42. The Internationale is the song of the "red" revolutionists. | TRUE
FALSE |
| 43. Jamacia raises and ships to this country large quantities of bananas. | TRUE
FALSE |
| 44. A battle occurred at Lexington, Mass., during the Civil War. | TRUE
FALSE |
| 45. Although Longfellow is the most widely known of American poets, he is not our greatest poet. | TRUE
FALSE |
| 46. A longshoreman is the third assistant to the captain of a ship. | TRUE
FALSE |
| 47. Locomotor ataxia is a disease of the muscles which makes it painful for one to move. | TRUE
FALSE |

- | | |
|--|---------------|
| 48. Lohengrin is a grand opera composed by Wagner setting to music an old German legend. | TRUE
FALSE |
| 49. Mary Magdelene was the mother of Jesus. | TRUE
FALSE |
| 50. Meteorology is the science that treats of the air and its motions, including climate and weather. | TRUE
FALSE |
| 51. Marconi is an Italian inventor who discovered wireless telegraphy. | TRUE
FALSE |
| 52. Michigan is divided into two parts by Lake Michigan. | TRUE
FALSE |
| 53. Marie Antoinette was very considerate of the rights of her people, and thus became one of the most popular of French Queens. | TRUE
FALSE |
| 54. J. P. Morgan is a wealthy manufacturer and head of the Packard Automobile Company. | TRUE
FALSE |
| 55. The Marble Faun is a romance written by Nathaniel Hawthorne. | TRUE
FALSE |
| 56. The millennium is the period when Adam and Eve lived in the Garden of Eden. | TRUE
FALSE |
| 57. The Newfoundland dog is one of the largest, handsomest, and most intelligent of dogs. | TRUE
FALSE |
| 58. Naturalization papers must be taken out by a foreigner in this country before he is allowed to vote. | TRUE
FALSE |
| 59. The North Sea is almost directly north of Sweden. | TRUE
FALSE |
| 60. Norfolk is a city in West Virginia. | TRUE
FALSE |
| 61. O'Henry is the pen name of the author of a large number of humorous stories. | TRUE
FALSE |
| 62. Panama is a little country in the isthmus connecting North and South America. | TRUE
FALSE |
| 63. Peru is one of the two largest countries of South America and is a very level country. | TRUE
FALSE |
| 64. Pocahontas was an Indian chief who made war on the settlers of Virginia and masacred many of them. | TRUE
FALSE |
| 65. Rabelais was a great French scholar and writer of the sixteenth century. | TRUE
FALSE |
| 66. The Renaissance originated in England and moved southward, but had largely died out before it reached Italy. | TRUE
FALSE |
| 67. A full grown rhinoceros weighs between three hundred and four hundred pounds | TRUE
FALSE |
| 68. Rockefeller made his money mostly by speculating in stocks in the New York Stock Exchange. | TRUE
FALSE |
| 69. Sappho was an Italian painter of the sixteenth century. | TRUE
FALSE |
| 70. San Antonio is one of the largest cities in Texas. | TRUE
FALSE |

- | | |
|---|---------------|
| 71. Billy Sunday is a popular modern evangelist of the very orthodox type. | TRUE
FALSE |
| 72. Syndicalism is the doctrine that employers and employees should work together in close harmony and agreement. | TRUE
FALSE |
| 73. Although Syria was once an independent nation, it is no longer a separate nation. | TRUE
FALSE |
| 74. Although Tolstoy was a noble, he was a friend of the Russian peasants and defended their cause. | TRUE
FALSE |
| 75. More of the Mormons live in Utah than in any other state. | TRUE
FALSE |
| 76. Thorstein Veblen is a noted German scientist. | TRUE
FALSE |
| 77. Voltaire, though an atheist, was very patient with those who differed from him. | TRUE
FALSE |
| 78. Besides being a poet and writer of short stories and essays, Henry VanDyke was a clergyman and an ambassador to the Netherlands. | TRUE
FALSE |
| 79. Virginia Reel is not considered a proper game because it is a kissing game. | TRUE
FALSE |
| 80. Wilhelmstrasse is a fashionable street in Vienna named in honor of the German Emperor. | TRUE
FALSE |
| 81. The Washington monument is a shaft more than five hundred feet high located in Washington City. | TRUE
FALSE |
| 82. Wilhelm Tell was a Swiss patriot and first president of the Republic of Switzerland. | TRUE
FALSE |
| 83. The climate of Wyoming is mild even in winter. | TRUE
FALSE |
| 84. A zoo is a city park on which the circus tents are nearly always set up. | TRUE
FALSE |
| 85. Nietzsche was a German philosopher who taught that the highest virtue is selfishness. | TRUE
FALSE |
| 86. Alexandria is the greatest steel center in the world. | TRUE
FALSE |
| 87. Schopenhauer taught that all reality is will, and that, since will can never be completely satisfied, the universe has a balance of evil. | TRUE
FALSE |
| 88. Don Quixote is a miscellaneous collection of funny sayings collected by a Spaniard named Cervantes. | TRUE
FALSE |

—Number of rights-minus-wrongs in above group.

—Score on above group (seven times number of rights-minus-wrongs).

INDEX

- Academic freedom, 287-291.
- Aggregation and socialization, 240.
- Agreement, Method of, 340-343.
- Agreement and Difference, Method of, 343-345.
- Alderman, G. H., on what civic instruction is needed, 334; *Bib. Ref.* on same, 352.
- Alexander, Carter, on publicity campaigns for school support, 115.
- Alexander, Magnus, on the loss from labor turnover, 121.
- Allen, C. R., on method of job analysis, 323, 352; *Bib. Ref.* on deferred values in education, 156.
- Americanization: nature of problem, 25, 38; dependent upon knowledge of English language, 241.
- American Sociological Society: *Bib. Ref.* on nature of education, 35; as educational agency, 224.
- Ames, E. S., *Bib. Ref.* on custom and taboo, 269; *Bib. Ref.* on church as educational agency, 205.
- Animals, lower, learning by, 23, 29-31, 36.
- Apprenticeship: means of education in primitive times, 24; nature of learning in, 32; place in democratic scheme of education, 113.
- Arnold, Matthew, as school disciplinarian, 255.
- Art, training for appreciation of, 16, 103, 387-389; as means of social control, 262.
- Association, educational effects of, 157-166.
- Atkinson, C. J., *Bib. Ref.* on boy's clubs, 218, 225.
- Attendance at school, persistence of pupils in, 105 ff, 146; attendance at Sunday schools, 204.
- Ayres, Leonard P., on social surveys in vocational guidance, 133.
- Bagley, W. C.: on the nature of education, 23, 35, 39; on function of school, 40, 54; on transfer of training, 52, 75; on educational values, 59; on educational determinism, 137; on minimum essentials in history and geography, 324, 327.
- Bassett, B. B., on minimum essentials in history and civics, 324.
- Bernard, L. L., *Bib. Ref.* on nature of education, 35.
- Betts, G. H. *Bib. Ref.* on the church as educational agency, 205.
- Bertillon, J., on relation of poverty and size of families, 180.
- Biological sciences, educational values and objectives in, 125, 126, 278, 301.
- Birth control, 179-181.
- Blackmar, F. W., *Bib. Ref.* 170, 192, 245, 269, 274, 292.
- Blind alley jobs, 130, 131.
- Bloomfield, M., *Bib. Ref.* on vocational guidance, 144.
- Bobbitt, Franklin, on cultivating large group consciousness, 249, 269; on method of finding educational objectives, 319, 321, 328, 329, 330, 352; on elements in domestic efficiency, 409.
- Bode, Boyd H., *Bib. Ref.* on democracy and education, 117.
- Bonser, F. G., *Bib. Ref.* on organization of curriculum, 300, 309.
- Book, W. F., *Bib. Ref.* on vocational choices of high school seniors, 144.
- Boys clubs as educational agencies, 217, 218.
- Brewer, J. M., on vocational choices of pupils, 132; *Bib. Ref.* on vocational guidance, 144.
- Brewster, Sir David, illustration of method of research, 340.
- Briggs, T. H., on value of Latin, 77; *Bib. Ref.* on junior high school, 309.
- Brown, H. A., on contribution of Latin to English, 77.
- Buellesfield, Henry, on causes of failure among teachers, 334, 352.
- Bullock, C. J., *Bib. Ref.* on Law of Diminishing Returns, 361.
- Burgess, E. W., *Bib. Ref.*, 245, 269, 292; on law and public opinion, 269.
- Butler, N. M., on the meaning of culture, 317.
- Carlton, F. T., *Bib. Ref.* on democracy and education, 117.

- Ceremony as means of social control, 263.
- Chapman, J. C., on trade tests, 137.
- Charters, W. W., on relative importance of educational materials, 68, 74; *Ref.* on scientific studies in education, 84; *Bib. Ref.* on organization of the curriculum, 296, 309; as student of educational objectives, 319, 323, 329, 332, 334, 352, 364.
- Chassell, Clara F., method employed in finding relative importance of elements of citizenship, 359, 365.
- Chatterton-Hill, George, on suicides in childless families, 171; on relation of wealth to size of families, 180, 192.
- China as example of molding power of education, 95; as example of education conserving the past, 285.
- Church as educational agency, 17, 157, 194-205, 263, 386.
- Citizenship, training for, 15, 77, 96, 125, 257, 347; education needed by one type group, 367-370; analysis of, 392-404.
- Clement, J. A., *Bib. Ref.* on the curriculum, 352.
- Clow, F. R., *Bib. Ref.* on crowd phenomena in school, 236, 245.
- Cold storage principle in education, 36, 146-156.
- College admission requirements, 14, 303; enrollment in, 107; educational guidance in, 123, 124.
- Colvin, S. S., *Ref.* on transfer of training, 75.
- Commission on National Aid for Vocational Education, quoted on need for vocational education, 97; quoted on why pupils leave school, 93; *Bib. Ref.*, 117.
- Communication and socialization, 241.
- Community of interest as socializing, 241.
- Concomitant Variation, Method of, 345-348.
- Continuation schools, 129, 130, 154, 155, 156, 200.
- Cooley, C. H., on number of children per family, 179; on tentative nature of progress, 273; *Bib. Ref.*, 166, 192, 205, 245, 292, 364.
- Coolidge, Calvin, on disloyalty in teaching, 286.
- Cope, H. F., *Bib. Ref.* on religious education in the family, 186, 192, 205.
- Correspondence schools, 154.
- Coursault, J. H., *Bib. Ref.* on nature of education, 54.
- Crane, A. G., *Bib. Ref.* on education for disabled, 117.
- Creighton, J. E., *Bib. Ref.* on scientific methods of inquiry, 352.
- Culture, education for, 16, 46, 78, 125; elements in, 321, 325-327, 335-338, 342, 343, 347, 373-383, 419-424.
- Culture epoch theory, 309.
- Curriculum, nature of, 42 ff; organization of, 293-310, 391.
- Curtis, H. S., on purposes of play, 216.
- Custom as force in social control, 255-257.
- Davis, Jesse B., on vocational guidance, 131, 141, 144.
- Dealey, J. Q., *Bib. Ref.*, 192, 285, 292.
- Defectives, 100, 176 ff. 191.
- Defects, Method of, 333-340.
- Deffenbaugh, W. S., on recent growth in high school attendance, 106.
- Democracy and education, 19, 88-118, 129.
- Dewey, John, *Ref.* on place of school in education, 23, 29, 39, 54; on education as preparation, 45, 149, 156, 294, 306, 310; on educational effects of association, 28, 160, 166.
- Diary as a means of discovering educational needs, 332, 333.
- Discipline of the school, 17, 46, 47, 236-238, 266.
- Divorce, 169, 171, 191, 411.
- Dublin, M. L., *Ref.* on recreation and delinquency, 217.
- Early training, advantages and disadvantages of, 146 ff.
- Eating together as socializing, 242.
- Education, nature of, 20-39.
- Educational guidance, 19, 123-130, 131 ff.
- Election of studies, 123, 300, 302; desirable limits to, 303-306.
- Elementary school, function of, 297, 300.
- Elimination of pupils from school, 92-94; 117.
- Eliot, C. W., on the meaning of culture, 317.
- Ellis, D., *Ref.* on motion pictures in education, 225.
- Ellis, A. P., *Ref.* on money values of education, 117.
- Ellwood, C. A., *Bib. Ref.*, 39, 168, 192, 205, 210, 274, 292.
- Enlightenment in social control, 264, 269.
- Eugenics, 171-183.

- Evolution as operative in development of new geological and biological forms, 20; as operative in the development of new ideas and institutions, 263, 279, 280, 315; relation to progress, 272, 275, 276.
- Family as an educational agency, 17, 99, 100, 157, 167-193; as factor in developing æsthetic tastes, 386-389; analysis of demands for efficiency in home life, 408-411.
- Farmers' organizations as educational agencies, 223.
- Festival as means of socializing, 242.
- Fiske, John, on theory of infancy, 22, 155.
- Foreign languages, educational values of, 14, 16, 107, 301, 302.
- Flexner, Abraham, on utility in education, 57, 74.
- Forbush, W. B., on non-school educational agencies, 206; *Bib. Ref.*, 205, 218, 225.
- Formal discipline, 15, 51, 52, 75, 78, 108.
- Freeland, G. E., *Bib. Ref.* on utility in education, 74.
- Freyer, Douglas, *Ref.* on intelligence standards and vocation, 135.
- Germany as example of molding power of education, 28, 95; vocational education in, 98, 110, 111.
- Giddings, Franklin, on forces making for socialization, 240, 245; *Ref.* on the costs of progress, 270, 292.
- Gillette, J. M., *Bib. Ref.* on democracy and education, 117; *Ref.* on the rural church, 205.
- Gillin, J. L., *See Blackmar.*
- Goodsell, W., *Bib. Ref.* on the history of the family, 192.
- Gowin, E. B., *Ref.* on phrenology in vocational guidance, 135.
- Guyer, M. F., on laws of heredity, 173, 175; on restricting marriage, 178; on size of family, 179; *Bib. Ref.* on eugenics, 192.
- Gulick, Luther, on purposes of play, 217.
- Hamilton, *Bib. Ref.* on summer camps, 225.
- Harris, W. T., on early high schools, 105; on meaning of culture, 317.
- Hayes, E. C., on the socializing force of association, 163, 166; on reasons for parental influence over children, 183; *Bib. Ref.* on eugenics, 192; on function of the church, 196, 201; on the press as an educational agency, 208, 209; *Bib. Ref.* on educational agencies, 225; *Ref.* on social control, 269; *Ref.* on function of education, 39.
- Harap, H., *Ref.* on objectives of community civics, 331, 352.
- Harvard University, number of students in its early history, 107; School of Business Administration at, 99.
- Health, education for, 125, 189, 404-408.
- Heck, W., on transfer of training, 53, 75.
- Hedges, Anna C., *Bib. Ref.* on wage worth of school training, 118.
- Henderson, C. R., on the family as a miniature of society, 167.
- Henderson, E. N., *Ref.* on nature of education, 21, 39; *Ref.* on transfer of training, 52; *Ref.* on play in education, 310.
- Heredity, 23, 117-183.
- Hibben, J. G., quoted on Joint Method of Agreement and Difference, 344.
- High schools, attendance at, 105-106; breadth of curriculum needed in, 106-112; function of, 299, 303.
- History, educational values in, 15, 17, 37, 44, 66, 71, 77, 103, 125, 126, 286, 302, 327.
- Hollingsworth, H. L., *Bib. Ref.* on vocational guidance, 144.
- Humanism versus the practical, 58, 59.
- Howard, G. E., *Bib. Ref.* on history of the family, 192.
- Hypotheses, Method of, 348-351.
- Ibsen quoted on progress, 227.
- Ideals, education for, 80, 200, 263, 264, 265.
- Illinois Schoolmen's Committee on Educational Objectives, work of and methods used by, 319, 321, 328, 329, 353.
- Imitation as means of education, 23, 28; as means of producing social solidarity, 161-163, 164.
- Immigrants, assimilation of, 25, 38, 241.
- Intelligence, native, 135, 136, 180, 271.
- Inglis, Alexander, *Ref.* on educational values, 79.
- Institutionalization, relation to progress, 278, 279.
- James, William, on loss of plasticity with increasing age, 22, 277.
- Jenkins, H. F., on best selling novels, 420.
- Jenks, J. W., *Bib. Ref.* on immigration, 39.
- Jesus, on the nature of the Kingdom of Heaven, 196, 251; as idealized hero, 194.

- Jewett, Frances G., *Ref.* on eugenics, 173.
 Job Analysis, Method of, 322-333, 339.
 Johnson, R. H., *Bib. Ref.* on eugenics, 193.
 Johnston, C. H., on the curriculum of the modern high school, 109; *Bib. Ref.*, 118, 310.
 Jones, A. J., on continuation schools, 156; on method of finding professional training needed by teachers, 350.
 Jordan, David Starr, on cretinism in Aosta, 172.
 Judd, C. H., *Ref.* on motor expression of ideas, 33; on general language course, 301.
 Junior high school, function of, 301, 302.
 Justice, sense of as means of control, 260-262, 265.
 Kellicott, W. E., *Bib. Ref.* on eugenics, 192.
 Kelley, R. W., *Bib. Ref.* on continuation schools, 156.
 Kelley, T. L., on educational guidance, 127, 145.
 Kilpatrick, W. H., *Bib. Ref.* on democracy and education, 118.
 Kipling, quoted on the "Law of the Jungle," 29.
 Kitson, H. D., on limitations in testing vocational aptitudes, 140, 144.
 Koos, Leonard, V., *Bib. Ref.* on curriculum of secondary schools, 310.
 Labor unions as educational agencies, 221, 223.
 Lamb, Helen E., *Bib. Ref.* on occupational information in the grades, 145.
 Langfeld, H. S., *Ref.* on use of questionnaire in vocational guidance, 134.
 Language, place of in education, 33, 36-38.
 Lapp, J. A., on education for business, 98; on education for home management, 100; *Bib. Ref.* on democracy and education, 118; *Bib. Ref.* on vocational guidance, 144.
 Latin, educational values of, 14, 48, 61, 62, 76, 77, 82, 107, 125, 126, 127, 278, 286.
 Lauk, W. J., *See Jenks.*
 Law as means of social control, 259, 260, 265, 267, 269.
 League of Nations, 201, 259, 260, 269.
 Leake, A. H., *Bib. Ref.* on vocational guidance, 145.
 Leavitt, F. M., *Bib. Ref.* on vocational guidance, 144.
 LeBon, Gustave, on characteristics of the crowd, 228, 231, 232, 233, 245.
 Lee, Joseph, on stages of development in play, 215.
 Lewis, W. D., *Ref.* on the downward extension of education, 109.
 Libraries as educational agencies, 217.
 Lichtenberger, J. B., *Bib. Ref.* on divorce, 193.
 Link, H. C., on psychological tests for vocational aptitude, 121, 137, 138, 140, 144; *Bib. Ref.* on vestibule schools, 156.
 Locke, John, on practical education, 317.
 Lough, J. E., on tests for aptitude, 138.
 Lull, H. G., on the curriculum of the junior high school, 299, 310; *Ref.* on prescription versus election of studies, 306.
 Lumboltz, C., on religion among Mexican Indians, 250.
 McCall, W. A., on relation of intelligence to vocational choice, 135, 136, 145.
 McCracken, T. C., *Bib. Ref.* on occupational information in the grades, 145.
 McGraw, Myrtle, on the contribution of the home to the aesthetic education of children, 160, 385.
 McMurry, Frank, on materials to be excluded from the school, 68, 69, 70, 71, 74.
 MacKenzie, J. S., on dangers of the press, 211; on the costs of progress, 271; *Ref.* on discovering norms from the study of social movements, 356, 365.
 Marden, O. S., *Ref.* on vocational misfits, 120.
 Marriage, regulation of, 178.
 Mathematics, educational values of, 14, 76, 77, 107, 126, 127, 128, 286, 301, 302, 305, 332.
 Maturity, lack of as a handicap to early training, 148, 150, 151.
 Mead, A. R., *Ref.* on transfer of training, 52; *Ref.* on parent-teacher associations, 103; *Ref.* on job analysis as basis for course in economics, 331, 352.
 Mendelism, 173 ff.
 Meriam, J. L., *Bib. Ref.*, spontaneous activities in the curriculum, 310.
 Metcalf, H. C., *Bib. Ref.* on job analysis, 353, 365.
 Mill, J. S., on scientific methods of inquiry, 348.
 Miller, G. R., *Ref.* on contribution of Latin to English, 77.
 Minneapolis Survey for Vocational Educa-

- tion on why pupils leave school, 94;
on job analyses of vocations, 323.
- Minimum essentials, studies by N. E. A. committees, 318, 324.
- Minority groups, 25, 101, 102, 102, 291.
- Mitchell, H. E., on arithmetic needed for life, 324.
- Mob characteristics, 162, 211, 228 ff.
- Monroe, Paul, *Ref.* on initiation ceremonies among primitive people, 24.
- Moore, M. E., *Bib. Ref.* on parent-teacher associations, 193.
- Morality, analysis of educational factors in, 416, 417.
- Mote, C. H., *See Lapp.*
- Motion pictures as educational agencies, 17, 148, 214, 215, 224, 386.
- Motivation of school work, 70, 147, 307.
- Muensterberg, Hugo, on differences in vocational aptitudes, 120; on tests of vocational aptitude, 138, 140, 145.
- Music, educational values in, 15, 16, 103, 262; as means of social control, 309; part of the home in educating for, 189, 387-389.
- National Committee on Mathematical Requirements, *Ref.* on consensus of judgment, 332.
- N. E. A. Committee on Reorganization of Secondary Education, 145, 321, 353.
- National Society for the Promotion of Industrial Education, *Bib. Ref.* 353.
- National Society for the Study of Education, 74, 145, 224, 324, 352.
- National Vocational Guidance Association, *Bib. Ref.* 145.
- Natural selection as factor in improving biological organisms, 21, 22, 271; as factor in producing group customs and institutions, 26, 28, 275, 276, 279, 280, 355.
- Neumann, Henry, *Ref.* on education needed for democracy, 101, 118.
- Newton, J. H., *Bib. Ref.* on democracy and education, 117; *Bib. Ref.* on the high school curriculum, 310.
- Norms derived from studying society, 354 ff.
- Objectives, need for specific, 75, ff, 315 ff; social objectives, 81, 391 ff, 419 ff.
- Oral reading, social utility of, 15, 382, 383.
- Osmosis in society, 162, 163.
- Parent-teacher associations, 115, 189, 190.
- Park, R. E., *Bib. Ref.*, 245, 269, 292.
- Parker, S. C., *Ref.* on relation of age to ability to learn, 70.
- Parsons, Frank, on vocational guidance, 122, 133-135, 145.
- Peabody, F. G., *Ref.* on meaning of the Kingdom of Heaven, 196.
- Perry, A., *Ref.* on crowd psychology as applied to classroom management, 238, 245.
- Perry, R. B., on fraternalistic government, 264.
- Physical sciences, educational values of, 15, 17, 37, 41, 43, 44, 74, 126, 278, 286, 301, 305.
- Pintner, R., *Bib. Ref.* on the inheritance of intelligence, 193.
- Pickell, F. G., *See Newton.*
- Plato, on philosopher-statesmen, 284, 357; on practical education, 317.
- Popenoe, P. B., *Bib. Ref.* on eugenics, 193.
- Preparation, education as, 149, 293 ff.
- Press as an educational agency, 17, 157, 206-214, 224, 386.
- Prestige, relation to imitation, 164, 184; maintenance of, 235.
- Primary and secondary groups, 167.
- Primitive peoples, education among, 24, 27, 194, 195, 255.
- Progress, lack of in curriculum, 45, 46-51, 53; education as a means of promoting, 94; obstacles to in church, 203; the pace of, 266-268; relation to education, 270-292; relation of social-survey methods to, 354 ff.
- Project method of teaching, 189, 190, 191, 306.
- Psychological objectives, 79-81.
- Psychological tests and vocational guidance, 134 ff.
- Public opinion, as force in determining school policies, 108, 114; press and public opinion, 207, 208, 209; as force in social control, 258, 259, 265, 267, 268, 269.
- Puffer, J. A., *Bib. Ref.* on vocational guidance.
- Pupil government, 116, 266.
- Pyle, W. H., *Ref.* on transfer of training, 53.
- Race antipathies, 161.
- References in popular literature, 324 ff, 420-424.
- Relearning after lapse of time, 147, 148.
- Relative utility as criterion in curriculum

- building, 59 ff; factors determining, 359-362.
- Religion, 184, 194-205, 249-252, 265, 269, 341.
- Rejuvenation, advantages of, 21-23.
- Ricker, C. S., on tests for vocational aptitude, 138.
- Robinson, J. H., *Bib. Ref.* on progress, 292.
- Rogers, Agnes K., on prognostic tests, 128, 129.
- Robbins, C. L., *Bib. Ref.* on vocational guidance, 145; *Ref.* on church, 205.
- Ross, E. A., on the distortion of news by the press, 212; on the emotional nature of crowds, 231; on socializing force of community of interests, 241; on social control, 249, 250, 254, 259, 262, 263; *Bib. Ref.*, 118, 166, 193, 203, 242, 243, 245, 269, 277, 279, 292.
- Rousseau, J. J., on postponing religious instruction, 199; *Ref.* on saving children from drudgery, 293; on practical education, 317.
- Royce, Josiah, *Ref.* on group loyalty, 102.
- Ruediger, W. C., *Ref.* on nature of the curriculum, 44, 54, 59.
- Rugg, H. O., *Ref.* on transfer of training, 75.
- Russia as example of crowding progress, 267.
- Ryan, W. C., *Bib. Ref.* on vocational guidance, 145.
- Sanctions, 249 ff, 269.
- School, function of, 19, 40-54, 72, 73, 158, 159, 187, 366-389.
- Scientific method, nature of, 81 ff, 322 ff.
- Scouting, 218-220, 225.
- Seashore, C. E., on tests for aptitude, 138.
- Shefferman, N. W., *Ref.* on selecting men for jobs, 135, 140.
- Small-group problem, 246-249.
- Smith, F. W., *Bib. Ref.* on high school curriculum, 310.
- Smith, Walter R., bibliographical references to, 118, 145, 166, 193, 206, 225, 245, 269.
- Snedden, David, on required algebra, 14; on analysis of objectives by committee, 85; on freedom of teaching in social science, 290; on the study of type groups, 300, 367-375; on Alpha and Beta activities, 307; on deriving norms from the B class individuals, 347, 348, 384; place in the movement to study educational objectives, 318; on classification of objectives, 321; on short unit prescriptions, 305; *Bib. Ref.* 76, 118, 129, 153, 156, 186, 193, 245, 269, 292, 306, 308, 310.
- Social control, 17, 19, 246-269.
- Socialization, 19, 226-245.
- Social mind, 160, 161, 239, 240, 263.
- Social radiation, 164.
- Social science, educational values of, 44, 126, 278, 301.
- Social suggestion, 163, 230, 252-258, 265.
- Social surveys, need for, 78; as basis for vocational guidance, 131-133; technique of, 84, 86, 87, 375-386.
- Solidarity of groups, as objective of education, 26-28, 38; resulting from association, 160, 161; conditions for realizing and utilizing, 226-245.
- Special abilities and vocation, 137-140.
- Spencer, Herbert, on the trend of evolution, 27; on utility in education, 57, 74, 317; on relative utility, 60; on confusing needs of specialist with those of general student, 64, 72.
- Sport as means of socialization, 243, 244.
- Stairstep character of progress, 151-153.
- Starch, Daniel, *Ref.* on transfer of training 53; *Ref.* on scientific study of methods of teaching, 79; *Ref.* on educational values in Latin, 77, 82; *Ref.* on use of consensus of judgment, 332.
- State and education, 94 ff, 198, 201.
- Sterilization as eugenic measure, 178, 179.
- Stout, J. E., *Bib. Ref.* on curriculum of secondary school, 310.
- Stratton, G. M., *Ref.* on the dynamic character of ideas, 33.
- Summer camps as educational agencies, 220, 225.
- Sunday schools, 146, 202, 204.
- Suzzallo, Henry, as pioneer in study of educational objectives, 318.
- Swift, E. J., *Ref.* on plateaus in the curve of learning, 283.
- Taboo as objective of education, 80, 104; as means of social control, 255-257, 268.
- Tarde, Gabriel, on festivals as socializing agencies, 243.
- Tastes resulting from association, 162, 163; the home and the aesthetic tastes of children, 384 ff.
- Tead, O., *Bib. Ref.* on job analysis, 353, 365.

- Telesis in education, 45, 101, 282, 293, 294, 355.
- Terman, L. M., *Ref.* on relation of intelligence to education, 136.
- Tests, standardized, 79, 204, 384-386.
- Test of general information, 425-440.
- Theisen, W. W., *Ref.* on publicity campaigns for school support, 115.
- Thwing, C. F., *Bib. Ref.* on the family, 193.
- Thompson, S. E., on tests for aptitude, 138.
- Thornborough, L., *Bib. Ref.* on motion pictures in education, 225.
- Thorndike, E. L., *Ref.* on conservatism, 50; *Ref.* on transfer of training, 53; *Ref.* on different types of mind, 89; on permanence of interests, 128.
- Todd, A. J., on the conservatism of schools, 53, 286, 291; on the primitive family as an educational institution, 168, 193; on evolution *versus* progress, 273; *Bib. Ref.* on progress, 292.
- Toops, H. A., *Bib. Ref.* on tests for aptitude, 145.
- Trade tests, 137.
- Triplett, Norman, on changes of occupation, 121.
- Type-group method of analysis, 86, 188, 300, 367, 385.
- Up-grading schools, 152-154, 155.
- Upton, Seigried, on methods of evaluating the elements of citizenship, 359-365.
- Upward distribution of education, 150 ff.
- Utility as a criterion in education, 18, 55-74, *See also Relative Utility.*
- Vocational education, need for, 91, 92, 93, 94, 97, 98, 113, 126, 129; present offerings, 109-111; analysis of educational objectives, 411-416.
- Vocational guidance, 100-101, 119-145, 186.
- Vocational placement, 143.
- Volstead Act, 267.
- Washburne, C. W., on references in literature, 324, 327, 353.
- Webster, Hutton, *Ref.* on initiation rites among primitive peoples, 24.
- Weekday religious instructions, 202, 203.
- Wells, H. G., *Bib. Ref.* on Eugneics, 193.
- Westermarck, Edward, *Bib. Ref.* on the gods as guardians of morality, 269; *Bib. Ref.* on history of the family, 193.
- Williams, L. W., *Ref.* on mathematics needed for chemistry, 126.
- Wilson, G. M., on the social uses of arithmetic, 324, 353, 365.
- Wilson, H. B., *See Lull.*
- Women's clubs, 223.
- Woods, E. B., *Bib. Ref.* on need for vocational guidance, 145.
- Yerkes, R. M., on learning by crayfish, 30.
- Yocum, A. D., on tests for relative utility of curricular materials, 62; 67, 74; on tests for exclusion of subject matter, 69; *Ref.* on transfer of training, 85.
- Y. M. C. A. as an educational agency, 146, 154, 216, 218, 220, 221.