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DECEMBER SEVENTH, 1941: SHOCK THERAPY FOR AMERICAN EDUCATION¹

Martha Guernsey Colby

IN PSYCHOPATHOLOGY there is a form of clinical treatment known as shock therapy. It is not a new idea. In medieval and, for that matter, early American days, they simply strapped the victim to a chair and, when he least suspected it, dropped him through a hole in the floor. Today we substitute drugs and electricity, which set up controlled convulsions in the nervous system. The basic idea is the same—namely, a drastic jolting up of the old bad organization to permit a better reorganization. The things which supposedly are jolted are the acquired neurological patterns whose more popular names are “habits,” “attitudes,” “complexes,” “beliefs,” “fixations,” or whatever school of terminology is preferred. My own pet version is “stereotype.” Liberated momentarily, at least, from some of these shackles of stereotyped action and thought, the patient is free, so to say, to form new habits, new attitudes, more in keeping with what life demands. Now in psychopathology, all the king’s horses and all the king’s men—meaning the doctors, psychiatrists, chemists, psychologists—are there at the patient’s bedside to do their expert best to put him less pathologically together again.

In normal psychology we have something closely akin. The difference is that, instead of metrazol injections, we get shaken up by some untoward event. We are brought up unceremoniously short—and usually without help from either horses or men—against the immediate necessity of reorganizing our lives. The old habits fail us; they won’t carry us through. Sometimes this is the fault of the catastrophic sud-

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denness of the blow. More often the fault is ourselves. Only rarely can anyone look back after disaster without facing that annoying couplet, "Of all sad words of tongue or pen, the saddest are these—it might have been." "Too little and too late" is only a modern version.

—But to return to shock. Shock therapy is severe and usually expensive as well. It involves considerable risk. Often it does not work. Without going into explanatory psychobiology, suffice it to say that at least it may work when nothing else will. It is, indeed, usually applied only at this critical point. Just as there are different responses in laboratory-induced shock, so there are different reactions in ordinary life. The trained intelligence with disciplined emotion will look back on its past shortcomings. Without evading the issues, it can say, "I was wrong. I shall do differently now."

The unstable intelligence may or may not be very high, but its reasoning always reflects more emotion than fact. It characteristically does one of two things in a shock situation: runs away if there is any physical escape, or "aborts" it mentally by verbal rationalization. The psychological gulf between reasoning and rationalization is deep. The first is the ability to face truth; the second is the agility to evade it.

A merely low intelligence or, for that matter, an undisciplined normal one, will react somewhat differently to shock. Such minds will flounder about in trial and error, like rats in a water maze, eventually sinking or swimming in accordance with chance. Their solution may be a bad one, but if it serves the success of the moment, it will suffice. Expediency replaces wisdom. And again the brief comfort of the moment may become the long plague of the future. The powerful stereotype of dull and undisciplined minds will attempt in all instances to revert to the old habit systems, hoping that these will muddle them through. Such minds are likely to accept consequences, not as good, nor as just, nor as sensible, but as merely inevitable.

As far as statistics show and despite Professor Hooton of Harvard, the majority of the human race still classifies under "normal" and responds accordingly to shock therapy. The behavior of ex-isolationist students, the Lindberghs, the Lewises, the CIO strikers, the doctors, the merchants, the housewives, the servants, even the Nyes and the Wheelers, proves it. December 7 was not a hole in the floor—it was a hole in our universe, and most of us fell clear through it. Within sixteen hours the world's most impregnable navy, housed in its own impregnable base, cracked like the Maginot Line. The cream of Amer-

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ican Marines died like rats in a trap. Not all the wealth, the factories, the schools, or the high standard of living could evacuate Guam, get help to Wake Island. Quite an accumulation of "important," "influential," "traditional" ideas got shocked out of the American system of thinking by that first bomb-shell at Pearl Harbor. Most of our easy rationalizations, our wishful evasion of facts, our phlegmatism, our optimism in the face of almost insolently obvious dangers were fully exploded by 4 p. m. Almost every man, woman, and child realized for the first time that the world of December 8 could not again in history be the world of December 6.

It is ironical that on almost every American lip that day was a statement of sardonic relief: "At least we know our stand." "In the end we will thank Mr. Tojo." "At last we can act!" And we set ourselves to the task.

Now those of us who deal with American youth are wondering whether the American public is as healthily reacting to shocks less dramatic, but thereby more insidious, more critical, and in the end far more ultimate to national survival than the Pearl Harbor debacle. If December 7 revealed some unappetizing laxity in the American military system, let us now have a look at what it revealed in American public education. We may start out with a good, clean-cut, indisputable example. Prior to January 1, 1943, 43 per cent of the nation's college applicants for Navy commissions were flatly rejected. Why? They had good minds. They had good hearts. Their spirit is obvious. But they could not pass the tests. Especially those in arithmetic.

Most of them couldn't read an ammeter, much less compute a cube root, and some of them couldn't spell. Polite, but grim, in his task of selecting candidates, a local officer said, "There are two things the American colleges really should begin to teach their students. One is mathematics. The other is hard work." These statements were made *before* December 7. At that time there was apparently no idea of "letting the Navy down," in the very literal sense of lowering any standards. This same officer was appalled at the mere suggestion. Yet within two months not one, but several traditional requirements are being relaxed—not by intelligent choice, but by necessity.

There is small comfort in the layman's naive solution (like that of some of our educators): remove the mathematics. For in the meantime, U-boats and battleships will continue to navigate by grace of spherical trigonometry. Nor will it be "spherical trigonometry" in a

nutshell"—as blandly proposed by a few "progressive" optimists. Even emergency courses presuppose something of plane trigonometry, of plane and solid geometry, of algebra and multiplication. It was not spherical trigonometry in which our college youth failed; it was algebra, geometry, square roots, division.

Prior to December 7, at least, most of the successful applicants for N.R.O.T.C. were science majors and engineers. But engineers are among the most desperately needed commodities on the production front. If our student engineers must be drained away to man our cruisers and submarines, who will be left to construct the factories, design the tools, and teach the future scientists and engineers? How have Germany and Japan managed the problem of skilled personnel? Partly by maintaining the scholastic tradition of mathematics throughout the whole school curriculum. Because they have maintained this "discipline" they can now pervert it to bad use. Because we neglected it, we cannot divert it to good use.

The immediate reaction of most college students to the shock of this educational blind spot has been a good one (well punctuated with sturdy Anglo-Saxon expletives of contempt for their pre-college training). The mathematics departments can hardly cope with their invading hordes. The same is true of those erstwhile unpopular "stiffs"—physics and chemistry. Yet in all this healthy, intelligent, therapeutic eagerness, there is a tragic note, which only the teacher sees: that you cannot teach solid, precise matter where there is no foundation, where the very tools of speech are lacking, and the very concept of *precision* is unknown.

The irony is that, for many years, the colleges and universities have fought these products of low-entrance standards forced upon them. Yet every time the N.E.A. meets, we know some other "discipline" will be removed from the preparatory docket. At the present moment, we are being seriously urged to have *no* requirements whatever. It would seem that the critical experiment of Pearl Harbor was the answer which he who runs can read. It would seem that our Navy-rejected students are reply enough. It may also be predicted that the inevitable failure of "get-well-quick" emergency diet in courses needing steady, long digestion will be still another answer when such congested training is put to crucial test. It is reasonable to believe that 98 per cent and not 57 per cent of our college upperclassmen should have passed the original Navy tests—and this regardless of whether they were to be lawyers,

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teachers, engineers, sociologists, or anything else. To a properly educated adult, their failure stands as a shameful proof of dereliction of duty on the part of our educational system. It has shortchanged an entire generation of American youth by a smug pursuit of "the easier way" and a false concept of culture.

Here is another example. Some of our psychologists have been making comparative analyses of mental test scores of 1917 college draftees and 1941-42 students. The results are not flattering to the latter. Their general scores lag about ten points behind. The depressions occur in those test-items based on abstraction processes, while simple rote memory shows little change. In the light of all the "miraculous healing" philosophy of progressive education, we should rightly expect, in 1941, higher scores on harder tests, not lower scores on the same test. Two explanations are offered. The first is the depressing conclusion of scholars like Hooton and Osborn, that through lax immigration and differential breeding we are swiftly becoming a nation of morons. The second, and more likely idea, is that 1942 youth does not shine in abstraction and reasoning just because these processes have never *been* shined. The healthy challenge of hard abstract tasks has either been "hygienically" removed, or desaturated to a mild solution. Instead of teething their early wits on the unyielding flint of mathematics, classical humanities, and cause and effect in history, their practice has been the vague, immature discursions of high school social science—and usually that without grace of Noah Webster. It is not the fault of the social sciences if their post-graduate problems prematurely replace the three R's. But it is like tackling the *Hammerklavier* before *Gradus ad Parnassum*. Compared with the orderly patterns of quadratic equations, the mutable complexity of human reaction staggers comprehension. Man may have conquered the atom, but he hasn't conquered war. Hunger and crime remain. December seventh was not a failure in physical science, it was a failure in social systems. Perhaps if engineers learned more humanities and more of the calculus whetted political brains, a dangerous breach might heal.

The dearth of elementary science background reflects itself also in medicine. Suddenly plunged into combat, the country is aware that neither doctors nor nurses suffice in number. As in the other professions American college youth has quickly flooded the pre-medical courses, in answer to the call. But here, again, the call is not enough. There is a minimum background in science and liberal arts without

which any course in a modern medical school is simply incomprehensible. Again we have the pathetic picture of college seniors, frantically trying to cram freshman science into their final year. Again the unbalanced preparatory years bottleneck a production process, vital to life and death. And again we have the alarming threat of haste and lowered standards in a profession where lowered standards can ill exist.

The same threat of lower standards occurs in the field of teaching as a whole. There is no reliable evidence to refute the unpalatable fact that standards in this field have long been in danger. For many years, industry has been absorbing the doctoral degrees. At present, less than 57 per cent of those taking higher degrees *in subject matter* remain in education. In the junior colleges, the proportion is truly alarming; 2.5 per cent! Furthermore, of these latter, more than 60 per cent have degrees, primarily in method, secondarily in subject matter. This is because in many states college teaching suffers from a dual personality. In the universities, the greatest of scholars may teach freshmen and sophomores with legal impunity. But they could *not* teach the same students in adjacent junior colleges, without a special certificate. Reversing the situation, many of the teachers in junior college could not legally teach in the university, without more training in subject matter.

It is often said that teaching excludes superior people because of its low income. If true, it is certainly not the whole truth. Such critics might do well to review the economic status of humanity's great teachers—Christ, Confucius, and Plato; St. Francis of Assisi and Thomas Aquinas; Erasmus and Galileo; Giotto and Brunetto Latini; William Harvey and Thomas Huxley; Kirchoff, Kant, and Helmholtz; Horace Mann, Oliver Wendell Holmes, Willard Gibbs, William James, to mention only a few who were never millionaires. Great teachers have seldom been rich men in any age, and they aren't in this one. This is no compliment to the scholar's mind. If industry and other professions continue to drain off the cream of the educational process, it will not be altogether because of higher wages. It will be because industry has not yet substituted the Sanctity of Method for the Sanity of Content; its research workers do not experiment under the Damoclean sword of Bibliography and Sophomore Ratings of Popularity.

Creative intelligence is there to be creative, and not to be dissipated in clerical drudgery or artificial tasks. At least so say the majority of those who have been drawn away from the schools into the offices and

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laboratories of the great industrial plants. But if sentiment within the teaching profession is any sure sign, then there may yet occur here, too, a modern Melanchthon and a Renaissance Wittenberg. Lectures on Homer and the Epistle to Titus may replace administrative questionnaires. Meanwhile, the real subject-matter teacher, who, like Mr. Chips, just likes to teach, will struggle along, unsung, and certainly unpromoted, to do his best in giving youth its birthright of human knowledge. Despite his lowly status in a stenographic era, he will give to his students, surreptitiously, if need be, his blood and his marrow to atone for the bitter lesson of Pearl Harbor.

Another bitter lesson, incidentally, is that of languages. It is a surprising experience in Japan to find how universal is the English language. At present we are trying to catch up in desperately concentrated courses in Japanese. The invasion of Manchuria would have been a better time to start, both for political reasons and reasons inherent in Japanese conjugations and post-positions. Most intelligent people foresaw that war would spread to global fronts. Yet, what did we do to prepare our communications? We have long since removed the faithful props of Greek and Latin roots for European systems; then we reduced the value of modern languages by reducing the requirements to a minimum. Only a few universities have ever encouraged the Oriental languages. The present training in this field is a fine example of expediency versus cultural motive. China is our ally. American soldiers are and have been fighting with Chinese comrades. It is, in part, the Chinese civilization, with its magnificent philosophy, literature, and art, its democratic ideals, which we are supposedly fighting to preserve. Yet the language of the Samurai sword-rattlers is being taught, through military necessity, to hundreds, and the peacetime language of Lao Tse, to tens. Certainly the western world needs the touch of Confucius, the poems of Li Po and Tu Fu, the great novels of the Shi Hu Chuan. And there is still the practical value of a language used in contemporary commerce, diplomacy, and war, by four hundred million friends.

Under our present system, students may get a college degree with one or two years of a foreign language taught at beginning levels. They are, of course, urged to continue, but too often the interest lags. Or else, just on the threshold of the exciting realm of a foreign *literature*, with the grammatical tools now in their hands, they regard the cultural value of French or German or Spanish as already achieved, and proceed

to elect another beginning course, and to acquire another smattering. Meanwhile, Goethe and Schiller and Heine, Corneille and Molière and Racine, Calderón and Cervantes, remain, if not quite such complete nonsense syllables as Euripides and Aeschylus, mere names on the library shelves.

And what about the mother tongue? The items of grammar, spelling, and reading are tactfully handled in many universities by segregating classes into special hierarchies of verbal literacy. But the casual regard for the *meaning* of words is a matter of more general concern. In my own classes, I occasionally resort to the mean trick of introducing a dictionary. After all, if a critical term has occurred some fifty times in print and fifty more in lectures, and students complain that the chapter meant little because the word meant less, there has to be some kind of drastic remedy. In response to the shock of this pedagogical insult, it is amazing how often such students appear thereafter armed with root, declension, etymology—in fact, the whole encyclopedia. They have discovered the thrill of semantics; the romance of verbal symbols; the art of diction and usage. But, only as college students.

Lack of precision in language produces curious shifts in semantics. These are of considerable interest to the social psychologist, since they represent those verbal stereotypes which, in the end, come to govern mass behavior. Every teacher who survived the adolescent maelstrom of 1939-41, in which the infantile concept of irresponsible license became the synonym for "Democracy"—in the classroom, on the campus, in the national capital—shudders at the possibilities inherent in this definition. Too many of us had watched with our own eyes the Nazi student reformers at work in the German universities, conscientiously using the same violence, rudeness, cynicism, and immature logic to re-define "liberalism," "race," "religion." There was an appalling parallelism between that strident, humorless self-confidence and the hysterical egocentrism which nearly went berserk on many an American campus.

In the shock of their country's need, much of this spirit has disappeared like magic, and more of it doubtless will. But some of it still persists in lower concentration, and, like an insidious and imperceptible gas, still subtly dulls the thinking of many an otherwise healthy youth. Here is a current example. Last week, one of our local army officers loosed a few verbal torpedoes in the direction of physical incompetence. All reliable authorities agree pretty fully that Pearl Harbor

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revealed a state of affairs in the physical education of American youth only secondary to the state of arithmetic.

Most of our youth is chagrined by this revelation. Even in this short time, the corrective classes are deluged. However, there is still a minority which regards the privilege of being anemic or diseased as a fundamental "democratic right," and any enforced exercise as a fascist infringement of liberty. One student, replying in print to this army officer, agreed that it might be a necessary evil to be strong and healthy during the war, but after it is over, he would certainly be as weak and inert as he pleased. Not only was his reply a denial of every normal biological and psychological "striving," but its smug stupidity was completely devoid of any sense of moral responsibility to society, or to his own future lineage.

Here again one must ask, where has the *educational* process been, to allow the seed of physical degeneracy to propagate so widely in the home of the richest incomes, the biggest stadiums, the land of challenging mountains, deserts, lakes, prairies, and streams, the land of the "tough" pioneer? Can it be that too much substitution of indoor plush for the classical Academia has had its logical effect? You cannot encourage a fatty steatopygia and lean, hard, resilient muscles at the same time or by the same means. It is, however, *easier* to sit than to exercise. Hence, by all Laws of Least Resistance, if you make the environment a sitting environment, students will *sit*. The embittered student now confronting hours of military drill instead of hours of soft upholstery after classes, is mistaken in rebelling against army "dictatorship." What his limited experience fails to sense is that the army suddenly *has* to take over a task in which we failed. The army had every right to expect a sturdy, not a flabby youth. So had every American taxpayer who supports the public schools.

It is a lesson of experimental psychology that a set of *general* habits learned in one connection will carry over into other fields. Hence it is not surprising to see "the Easier Way" corroding even that hidden spark of energy we call "initiative." When I first stood on the Great Wall of China, with the Japanese already threatening Peiping, I knew that the enemy might overrun China for a hundred years without conquering the spirit of the humblest ricksha coolie. I had learned that twenty years earlier in a little western college in a freshman class assignment: to locate the sources and learn by heart the Sermon on the Mount; Books I, IV, XII, and XV of the Analects of Confucius; and the

three basic doctrines of Buddha Sakyamuni. It was the teacher's mistake not to have added the prayer of the muezzin—and I was sorry, twenty years later, under the minarets of Delhi, Damascus, and Cairo, that Mohammed had not been included in those formative, imaginative years.

To occasional bored, materialistic students, groping for "something different," I have sometimes proposed this assignment which had proved so rich to me. Occasionally they will respond—providing I get them the books. They respond still more if I mark the paragraphs. They are still more interested if they can get it "briefly and to the point" in predigested form. *Learn* that useless, archaic stuff? For what good reason? Perhaps there is no reason—except that after all its existence the human race is still reaching out after those deathless precepts, nor has it yet improved upon the enduring beauty of their ancient form. But these students cannot see, and have not been trained to seek. Like Santayana's Dr. Faustus, "they trust in magic and in their own will; covet all experience and hearken for the promised land; but they will never see it except in a mirage, if in contemplation of substance, they merely command it to appear."

Not only in matters of intellectual curiosity, but even in such humble aspects of learning as study habits, do we see the debilitating pedagogy of "the Easier Way." I once attended the classes of a great musician. Almost at the end of one of these gruelling but inspiring occasions he stopped the tired performer. "Why do you use that fingering?" he asked. "Because it is easy," said the student. "It is not the function of music to be easy," roared the master. "It is the function of music to be beautiful! There is no easy way to art." Poor pedagogy? Ask any student who hoards and slaves for months and even crosses oceans, to be an hour's "persecuted" victim in these classes. Such pedagogy works because it is a challenge and not a soporific to a healthy brain and a sturdy heart, and these are what most people have, at base. In music, at least, the modern cult of thalamic complacency has not yet replaced the ancient biogenetic principle of progress-with-struggle. It just wouldn't work out on the concert stage.

It is probable that 95 per cent of America's school teachers believe that none of these educational crises was any more necessary than the military debacle at Pearl Harbor. The danger signal gleamed, all along the way. But those who heeded them, i.e., the *subject-matter teachers*

in the classrooms, were as effective as the humble radio operator whose warnings might have saved Pearl Harbor. Yet, in accordance with our Freudian epoch, we chose the easier way. It does not "frustrate" children to allow them to have their own way; it also taxes our own ingenuity less, and it gives our adolescents that sense of ebullient contempt for whatever they don't happen to like. Now children are likely a little more natural than we are, and if it is typical of us to avoid a hard thing in our path with an easy one handy, it is more so of them.

Catering to the obvious, we therefore begin very early to delete or dilute the unpopular disciplines. Nobody regrets, and we have all worked toward, the fine progress in nursery-school education. We are glad the hard board benches and the hickory switches are gone. We are glad the "whole" child gets educated nowadays—providing it isn't forgotten that no whole is anything more than the subtle *organization* of its dynamic *parts*. We are glad young America has discovered the arts, even though, according to Fadiman, it has never discovered the laws of English grammar. The "Project Method" doesn't excite us much one way or the other, since it is only a new name for an ancient technique. We even approve much, though not all, of "Progressive Education."

But was it necessary to give our pre-college youth a *starvation diet*? Were the brains of these tough, healthy, intelligent Americans so fragile that they couldn't tackle the basic disciplines *as disciplines*? (They are tackling war, as war, in a way that should make us ashamed of our under-estimation.) Educationists today tell us that the idea of "disciplinary" subject matter is obsolete. All subjects are equally disciplinary or equally easy, if taught according to principle.

Granting this hypothesis, its use is unquestionably difficult. For the inherent nature of some subject matter is concrete, and the inherent nature of some is abstract. Every simple psychological test involves this distinction; every score shows the qualitative difference. Every classroom teacher knows the relative difficulty of teaching abstract concepts as opposed to memorized facts. Nor is it any intelligent solution to remove the concrete facts. Throughout human learning, these two very different processes should run parallel—thorough drill in factual memory, plus thorough drill in abstract manipulation of its content.

Mathematics most obviously converges these two disciplines in an inevitable, natural way. Children can, and usually erroneously do, learn their "descriptive" courses through rote memory, because it is

an easy way, and it can successfully be done. But mathematics does not deal with concrete events alone—nor with those vaporous discussions devoid of facts which endanger eighth grade social science classes. Mathematics teaches children to use language sparingly, not as a “lethal medium for concealing thought.” No amount of “opinion” about an algebraic equation can conceal the absence of ability to solve it. It teaches precision and satisfies motivation, for every correct answer is a clear reward. It teaches persistence to an end, for a problem is either solved or it remains unsolved. It teaches concentrated attention in its maximum form, since no element or possible *relation* of elements in the problem may remain unseen or disregarded. In short it offers the most natural subject matter for *sharpening* the intelligent mind and basic tools.

This utilitarian training aspect is not meant to infringe on the cultural value of mathematics. To highly literate people, that speaks for itself. It also speaks for itself in the graduate record examination in American universities, where “social” and “cultural” curves of “pure” mathematics and physics majors too often rise above those of students majoring in the “cultural” divisions.

Depressing as are the revelations of Pearl Harbor, it is reassuring to see some evidence of shock therapy beginning to work. Academic “first aid” measures begin to spring out like a rash. While many of these “emergency” courses merely provide a vent for letting off frustrated patriotic steam, these are, as yet, in the minority. The genuine remedy in the educational emergency consists, ironically enough, in merely dusting off the elementary courses for thirty years on the specialist’s shelf.

Few universities are adequately staffed to handle the situation. Unfortunately, there still lurks within these rational reactions the dangerous virus of modern education’s credo of vocational utilitarianism and expediency. One worries lest all these basic disciplines, so appallingly necessary to modern war, be shelved again as unnecessary to modern peace. One worries lest this necessity of compromise with Mars may finally eclipse the classical humanities, within whose already fragile, and therefore priceless remnants, lies the moral heritage of man’s abstract spirit as opposed to the material gadgets of man’s hands. Finally, one worries about the quality of the hurried teaching, and the quality of the learning, which, as the costly price of

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past neglect, must now "hit the high spots and cram them down," with little deference to the laws of mental digestion or biological maturation. The "survey" course was already the bane of the college curriculum, long before the war, and it is hard to foretell what despotic heights it may reach through the expediency of the present.

Let us only pray that the future doctors who remove our appendixes, the engineers who build our bridges, the lawyers who guard our justice, will not all have been trained on "survey" or "emergency" courses. One might even legitimately wish—though in the light of experience one can hardly hope—that even our politicians be steeped in history, political science, and economics to the level of statesmanship.

That the danger of depressed standards is a very real one may be verified by examining on any campus the terrific outside pressure already applied toward this telescoping process. The dean of one of America's finest law schools has recently said, "Better to close and lock the doors for the duration of the war than to turn out a generation of badly trained lawyers." In opposition to this attitude, some of our congressmen—literate or illiterate as the case may be—have already gone on record in formal proposals to "cut out the frills" and substitute engineering for all men, and cooking and nursing for all women. A page straight out of Hitler, if there ever was one! Nationally known educators have proposed eliminating the senior year of high school entirely, admitting all juniors of whatever capacity to college ranks. Most of these practical expedients have thus far met with intelligent resistance by college authorities whose vision extends farther than the immediate present, and who, in the light of what we have already done to the "fighting generation," do not agree that the remedy is still further reduction of all education to the level of vocational training.

It is probably true that the war will be won by pilots and skilled mechanics, but it will take more than skilled mechanics to handle the aftermath. The prostitution of German universities to utilitarian war goals will not be atoned for in this generation. Are we to copy their pattern? England, even with her back to the wall, has not yet made that sacrifice. China, many of her magnificent universities bombed into rubble heaps of glistening tile, carries on that tradition of *scholarship* in the loess caves of her distant provinces. Old and wise in matters regarding the human spirit, she knows that in the end there is no fabric of civilized culture which she can afford to discard for expedi-

ency's sake. Not all the material destruction, not all the physical degradation imposed by the enemy have broken the British or the Chinese faith in higher education. On the contrary, the bombed Inns of Court and raped Nanking have only served to bolster a national defense of those intangibles for which all humanism stands. Indeed, both countries seem to profit by bitter lessons in their educational gaps.

Now we, too, are tasting bitter lessons. Committed ethically in our hearts to the British adage that "no war is worth the life of a single British tar," yet practically to the belief that no life is worth slavery and degradation, we too are paying daily in innocent lives to defend both precepts. And because we have so willingly followed an educational Pied Piper and his alluring tune of "the Easier Way," our victory is immeasurably delayed. Throughout the earth, the unleashed frenzy of the Four Horses of the Apocalypse awaits a whole generation of international youth.

I think our students know, by now, that they not only have to fight the war, but they have to make the peace. It is youth which will have to construct another civilization from the charred ashes of the scorched earth. Youth, at least, seems to know that taxes alone cannot do this. Neither can ten million airplanes, nor the most perfectly trained army on earth. Only human intelligence, sharpened as never before through maximum discipline, freely informed as never before in all the historical branches of human culture, understanding as never before in the biopsychological aspects of man's nature, and creative as never before in the moral and physical redemption of a desecrated Nature, can build that better world for which men, women, and children are dying now.

This is Pearl Harbor's challenge to education.