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Training to Survive the Hazard Called Education

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For many years, this paper has been rejected by a variety of educational journals. It was originally read at the behest of Interchange and the Department of History and Philosophy of Education, at OISE, 6 February, 1970. Professor Agassi, one of the most well known of Karl Popper's students From the London School of Economics, and a professor of philosophy in both Israel and Canada, decided to have one last attempt at finding a journal willing to publish his reflections on the evils of compulsory instruction, the errors made in the name of educational reform, and the strategies necessary to end the "illegitimate coercion" of knowledge. Interchange is delighted to have the chance to publish Dr. Agassi's reflections. We hope that it will inspire those, both opposed and in sympathy, to write in "interchange" with him.

Ian Winchester, Editor

The present paper centers on one phenomenon – namely – the illegitimate coercion practiced in schools to obtain knowledge. It seems to me an unquestionable that the hatred of geometry or of history or of Shakespeare is not inborn but the outcome of this harmful and utterly redundant coercion. I wish to present a threefold thesis and a program for immediate action which will hopefully have a snowball effect. First, whenever students are coerced, educational reformers look for means to replace coercion with cooperation: they I seek the motivation that would enable teachers to push coercion to the background as a last resort. (The exception is corporal punishment, which many educational reformers oppose unconditionally.) Second the proper task is not to replace coercion with motivation but to train students to neutralize its effects. Third, this may lead to the validation of legitimate coercion together with the collapse of illegitimate coercion. This collapse will effectively be the end of imposed studies and, thus, of most of the compulsory curriculum. The establishment of equality between faculty and parents, and between faculty and students, the establishment of co-operation between all those who are actively concerned with education on an equal footing will be the natural next step – though this is beyond the scope of the present paper. My proposals here concern techniques for neutralizing illegitimate coercion and for disseminating information concerning these techniques. They are meant to be put into operation at once, but not necessarily as they stand. On the contrary, an essential element in what I propose is that we build an informal non-conformist movement for independent studies, comprising students, teachers, parents, administrators, educators and others, whose chief function is to disseminate proposals, assemble experiences arising from attempts to implement them, provoke public discussions, and lead to improved versions of the original proposals. In brief, I propose the improvement of education, particularly as this relates to alleviating the suffering that the system now inflicts on students and on others. I also suggest techniques for introducing into the process of education what may be called the scientific, or critical, or experimental method (these three labels are used here as synonyms).

Let me begin with an observation about the rewards of education in the crudest terms, that is, in terms of dollars and cents. Economists have puzzled about the fact that rewards from investments in education may be so much higher than the average payoff. To illustrate this, take two extremes. Consider the fact that without the benefit of literacy one can hardly become a skilled worker today, whereas a literate person will almost necessarily pick up a skill – that is

to say, he will acquire some skills, and even with ease, unless he is artificially prevented from doing so. Consider also that if a business concern supports a group of high school graduates through college and medical school on the understanding that on establishing their private practices they will pay the business concern half their added income for the same number of years they were supported in school, and if only half of them open private practices, and pay as agreed, then already the profit margin is higher than could be expected in the investment market.

These are the extremes. In the middle there is much frustration. Often a student works hard for years, only to end up with a wishy-washy bachelor's degree of almost no use for anything, except for occupations for which he is mentally quite unprepared. He will be, as the expression goes, overqualified for some jobs, under qualified for others, and thus probably unemployed. The reason for this failure is quite obvious and easily testable by anyone interested: when the student complains about the poverty of his education, he is told that it is useful; but when he asks about the uses, he is told about higher intellectual values: and so on, back and forth. This is to say that the student pays for the exercises in self-deception which his teachers regularly perform. No doubt, the economic profitability of education, though it already relatively very high, could be made much higher by the elimination of this form of self-deception. And this elimination could be achieved fairly easily through the exercise of the rather common and fairly usual means of public, rational debate. If it turns out, for instance, that some dull work – such as mastering a vocabulary of technical terms – is essential for the attainment of certain careers, then let those, and only those who are bent on such careers undertake the minimum necessary amount of that dull work. There is no reason to have, as a by product of education, half the adult population hate mathematics and science, for example, just because some of their classmates wanted to end up as scientists; nor do scientists have to be trained to hate history and literature, as another example.

To conclude this introductory note, let me point out that when an economist assesses the worth of a farmer's labors, he does not simply assess the value of his crops. He also subtracts from this first, the damage he has caused the land (such as erosion and chlorination which he brings about through irrigation). Second, the economist subtracts at least the yield from the farmer's land when fallow. A more modern economic approach also requires that he subtract what income he could earn if he were otherwise employed – which is a way to compare his efficiency as a farmer with that of the other methods of employment available to him. But I do not wish to pursue the economic model much further. Let me, rather, consider two educational theories. One is the classical western theory; it is false. It has its origins in the philosophy of the early 17th-century thinker, Sir Francis Bacon, and its full expression in the 18th-century classic, *Emile*, by Jean-Jacques Rousseau. According to the classical theory, the best result in education is achieved when the field is left utterly fallow – when there is no instruction at all of any kind whatsoever (or almost none). A more modern theory, and one which I think is the best we have, is a compromise between old and new ideas. It is credited to Homer Lane, Bertrand Russell, and Janusz Korczak and it states that students need the guidance of both peers and adults (as tradition has it) but that they achieve this best if they remain the judges and masters of the situation (contrary to tradition). In other words, students learn best if they are left to select problems for study, or even goals for their own education, not to mention the right to ask (or not ask) for help, as well as the right to reject all help with impunity.

Rousseau's educational theory (which is really the classical theory widely accepted throughout the Age of Reason) is based on the philosophy of science of the Enlightenment, which, in turn, is part of the psychological theory of the age, namely, associationism. This classical theory is utterly passivist; and being passivist, it prefers the unadulterated impression fresh from the

hand of Nature to the distorted instruction of teachers. The modern theory is more activist; according to it, learning, scientific or otherwise, is and ought to be a matter involving controversy and critical debate, trial and error, correction and modification. The modern method of learning is Socratic, something akin to the friendly/hostile co-operation which Popper describes as science and to the successive stages of cognition which Piaget describes as the rather spontaneous growth in the normal child's process of learning. The difference between the older passivist view and the modern activist one is tremendous. The classical theory views open-mindedness as the absence of obstacles. Teachers may all too easily provide the worst obstacles, according to the older view, because teachers are prone to be active. The modern theory views open-mindedness as the readiness to reconsider whatever has been previously considered as true, and even what has been generally taken to be amply verified (e.g., Newtonian mechanics). What the two theories – the classical and the modern – share is the idea of progress, scientific and personal. The really old-fashioned theories (of education, science, and psychology) take teaching to be the transmission of a body of knowledge – be this Chinese, Catholic, Muslim, Talmudic or Communist. The two more newly fashioned theories (of education, science, and psychology) take it for granted that the ability to learn is much more valuable than knowledge because, however much knowledge one possesses, one's knowledge (and education) is never complete. Hence, the classical and the modern views share more similarities than differences, even though the contrast between them will be the focus of attention here. All this, I think, is enough philosophy to approach the topic at hand. I wish to start now with a few sketchy historical observations.

The classical (and mistaken) idea that the best education is self-education, unaided by a teacher, has been popular since the 18th century. Yet it has not led to the abolition of the school system. This is not because Rousseau's idea that a child can teach himself reading and writing is in any manner incredible. After all, Edgar Rice Burroughs hardly qualifies as an intellectual and his Tarzan has an excellent physique but not a particularly high IQ. Yet Tarzan, you may remember, taught himself reading and writing, almost exactly like Emile. Why has Rousseau's idea been popular, yet schools have remained operative with curricula, age-group separation, and instruction? The reason for this is a fascinating topic for students of the history of human folly and dogmatism. Usually they blame the decadence of civilization for corrupting students to the point where they need rectification or at least protection. I shall not go into further detail. I shall only say that since Rousseau's theory was believed but not implemented, the possibility of school reform was seriously impaired. Where the new ideology does not apply, the old one lingers on.

But one need not be so systematic as to hold a consistent ideology on the one hand and a consistent practice on the other and forever to ignore the inconsistency between the two. Johann Heinrich Pestalozzi, child of the Enlightenment and believer in passive self-education, invented a delightful compromise. The poor children he taught were so remote from nature and had been made so degenerate by the worst in civilization that they had to be taught; but they had to be taught not so much the curriculum as the proper ways and means to combat the ill effects of civilization. According to Pestalozzi, these ill effects had to be removed from them before they could rediscover their natural capacities. But once rediscovered, they would teach themselves unaided. These children, like criminals, were thought of as being out of tune but still human and so deserving respect. Since they were defective, the teacher had to retune them with nature and then, in degree, leave them alone to learn from Nature herself. All this is but a somewhat better version of the Rousseavian view (with the gloss that Kant added to Rousseau's philosophy). What is novel about this theory is the idea that the teacher has to seek the co-operation of the student in the matter of retuning him with his own nature.

This desire to enlist the students' co-operation was the first real break-through. Not surprisingly, it was deeply linked with the well-known fact that Pestalozzi advocated vocational education for poor students, delinquent or not. The result was magnificent. In one century, starvation was eliminated from Switzerland, and even poverty became a rare thing there. All around the world, vocational schools opened where slum kids learned to find their sense of dignity (though other vocational schools were and remain like reform schools). Pestalozzi influenced Homer Lane, the great American educational reformer, who, to secure more co-operation with students and convicts, developed the idea of school self-government. This influenced, among others, Mgr. Edward J. Flanagan and A. S. Neill. Pestalozzi also greatly impressed others, such as Anton Makarenko and Janusz Korczak, and thus all free schools to date. But before this trend was developed another trend of reform was tried out, a kind of a hybrid between the classical Rousseauvian and the traditional approach. The idea that a student may co-operate with his teacher was so forceful that it also (and indeed, first of all) influenced teachers who believed in the traditional view of education as the transmission of a body of traditional knowledge. It struck a number of educators who wished to retain the traditional views as a new ray of hope. And so they jumped at the opportunity to make schooling, as they conceived it, less unpalatable. But their objective was to raise education's level of efficiency, not to arouse in students any natural capacity to learn new things.

One of these reformers was Maria Montessori. What she inherited from the Age of Reason was its psychology of perception and co-ordination – associationism – which, two centuries after it had become common property, could be used to reform the school system. The strength and weakness of the associationist psychology is that it applies to man and beast alike. It cannot help us understand why only man but not beast tags names to sensations and to their constant conjunction. But it therefore considers the newly born as an individual engaged in learning. And so Maria Montessori could introduce preschool training in co-ordination. Had this led her to develop vocational training, it would have been quite natural; but her interest lay elsewhere. She supported the regular curriculum but felt it could be administered less painfully. When children were bored and not allowed to play, she observed, they played under the table-and masturbated, too, but we need not be so crude as to say so out loud. She recommended that games be officially introduced into school and integrated into the educational system, whether for the development of co-ordination or literacy.

Montessori, and many other reformers at the turn of the 19th century, discovered that education was a bitter pill that could be sugarcoated, thus coaxing students to swallow it, perhaps even with pleasure. The ideology behind the reform, the ideal of self-education, was entirely lost on the way. All the great innovators of didactics and of humanized schooling, and Montessori among them, never doubted that education was a one-way street where teachers handed knowledge down to their ignorant students. The innovation was purely didactic, a technical matter of sugar-coating. And even though sugar-coating was not new (children's books and educational toys are as old as the Enlightenment), its introduction into schools was a genuine revolution. Montessori had, indeed, to build her own chain of schools in order to implement a century-old innovation when she entered the field. This was how backward education was in her day. Nowadays, at least, her ideas are accepted, to some degree, in almost every school in the West.

Recent Reforms

Perhaps it is a measure of the overall progress in our society that we are not content today with such innovation. Even John Holt, in *How Children Fail*, describes how the standard mode of education stupefies children. Until they go to school, he observes, children teach themselves.

Then school forces them to put a halt to self-education, and deterioration sets in. He notices that children develop some techniques of self-defense – methods of surviving the hazard called education. These include playing industrious, playing stupid, and courting the teacher while hoping to trip her up. Holt notices how inefficient all this is. He has nothing else to offer. More recently, he expressed hope that with love and dedication some teachers in the slums will do better than the average teacher and then serve as a model for others.

John Holt is the house rebel, like the poet Yevtushenko in the Soviet Union. He sees the shortcomings of the system, applauds a brave quixotic attempt to defy it, but in sheer self-defense and in the name of survival, finally joins the system and advises others to do likewise. Yet even house rebels can serve a positive function. Their pronouncements signify the fact that certain evils of the system are now publicly known and acknowledged as such, even if on the excuse that they are necessary. Their pronouncements are milestones in the history of the growth of public awareness of the evils in the midst of which we dwell. From now on, there is no need to debate the question. Those who still doubt that ordinary schools make ordinary clever kids into ordinary dumb adults can be told to read John Holt's best-selling book.

There is nothing new in *How Children Fail*. The very existence of free schools, experimental schools, and all sorts of alternative schooling testifies to the existence of dissatisfaction with education. No doubt, quite a few of these alternatives were developed on the basis of Freudian, Socialist, and other sectarian or esoteric principles. Yet most esoteric schools are conventional so that those rare esoteric schools which are also experimental conduct educational programs which are distinct from their sectarian ideologies. Also, not all experimental schools have been successful—otherwise they would not have been genuinely experimental. And others have been casualties either of hostility and bigotry or of some other extra-educational failing. It is hard to point to many successful free or experimental schools – perhaps Summerhill is the only well-known one in the English-speaking world, and it is sectarian since it is run on Freudian principles. Yet almost all the successful educational reforms that have become public property have been endorsed by the general educational system only under the threat of schools operating outside the general educational system. Without the sense of a genuine threat from these more liberal schools, much of the liberalization that has taken place in the last century would not have been allowed or would have been destroyed soon after implementation.

But the pressure from the experimental schools, which are generally more liberal than those within the general educational system, is nowadays countered by pressure from the still more authoritarian innovations, responsible for the new mathematics and the new science. In various university-stream high schools, where these approaches were first implemented, immense pressure is frankly put on students with the aid of their parents. Students are stuffed like geese. Success is measured by the number of graduates who land in the Ivy League universities, or by the number of Ivy League graduates who attain national awards. In all such schools, there is no moment wasted on the lot of the misfits, of the ones less successful than the pride of the crop; not a moment is spent on the ones who do not aspire to reach the top or the ones whose hopes and chances to reach the top are slim; no discussion is allowed about the community's criteria of excellence, or of the correctness or empirical reliability of the indicators of excellence. All energies are invested in efforts to grab as many of these indicators of success as possible. Never mind how many of our high school students end up graduating from Ivy League universities. What matters is how many get there, or how many of them achieve, ten or 20 years later, some national or international fame. The university which is in the Ivy League gets the cream of high school graduates by its own lights, yet its only concern is with the freshmen who have good chances to become either brilliant scholars or rich alumni. As for the rest of them, its only concern is that they leave as quietly and as soon as possible; certainly, there is

no follow-up on the damage their alma mater may have caused them. As the competition to go to Ivy League universities increases, high school children are taught to chat knowledgeably about DNA and RNA, and to say carbon 12 – with no knowledge of atomic weight or molecular structure. They may reach the best school thus, but they'll hardly stay there (as yet). Some in the Ivy League are now worried about the increased rate of dropouts there (it's becoming bad for their reputation). Others are more complacent (not much can possibly damage Harvard's good name, for example, not even Harvard's own president).

This is the place to say a few words on the place of love in education. There is one popular philosophy of education not mentioned here thus far, and it is the romantic theory, which says that the chief role of education is character building. Without discussing this theory one may notice the two chief instruments by which its adherents implement it: one is curriculum, the other is love. As to love, if it makes the world go round, it can do whatever you want it to do. Pestalozzi already saw it as a means to his end, and so did Homer Lane. Rudolf Steiner believed unusual doses of it are needed for the education of the mental defective, and many believe the same today regarding underprivileged children. There are, let me report, experimental schools which are highly achievement oriented yet operate on love alone. To my mind, these are some of the most bigoted and harmful institutions around: they do not coerce students but ration love to them in the measure of their achievement, thus making them obsessive competitors. When one rations bread in accord with achievement, the student need not be deceived; but when he is hungry for love and does not know it, his destruction by the loving and patient and dedicated teacher is a truly unbearable sight. But I am picking on these institutions. After all, facts are on their side: they send ever so many of their victims to the Ivy League cemeteries.

What we can learn from all this is that many students, in schools and colleges, are suffering and in need of immediate help. We also can see that the educational system is rather easily swayed one way by liberal schools – be they experimental or doctrinal – and in the opposite direction by arch-achievement-oriented schools – be these authoritarian, tough-and-no-nonsense schools or schools emotionally conducive to learning. If so, then, quite possibly, helping the students in need of help may sway the system more forcefully and perhaps even transform it.

This is not a survey of all the reform movements in education in the West. Rather, it is a presentation of the interplay between the two poles (or myths) of education, the traditional, fully authoritarian school ideology and the Enlightenment ideology of utterly free and natural self-education. The reason the ideology of self-education affected school reform was that some of its believers reconciled it with the existence of curricula, age-group separation, and instruction. Indeed, some went so far as to abolish both the curriculum and age-group separation, yet they stuck to the hard core, to instruction. (After all, instruction is ancient, curriculum is medieval, and separation, Napoleonic.) Those who rejected instruction could only influence the general educational system indirectly by constituting a threat to it from the outside. But this threat is now partly countered by a threat from the opposite direction, by the competition from the highly successful achievement-oriented schools. Many schools are torn between the appeals from both extremes, and are thus paralyzed and confused.

And so the question is, can we do better than merely institute more liberal schools? How can we aid those who cannot escape the existing general educational system? Is there, quite in the abstract to begin with, any alter- native to both (old-fashioned) instruction and (Age of Reason) self-education? It looks as if logically no third possibility exists. This is because the question is poorly put. It is not instruction which is evil, but the authority of the instructor.

Here the new theory of learning as trial and error can be of help. Albert Einstein was convinced that the general educational system is a major evil, yet, he said it is extremely easy to overcome: all one need do is abolish the authority of the instructor. First, in the abstract, the student may choose his instructor, err in his choice, and then try to improve his exercise of his own choice. Second, in the way of rendering the abstract idea more concrete, we can consider the existing general educational system on its evils and ask how we can reduce slightly, but immediately, the teachers' authority and, in its stead, slightly, perhaps, but immediately, increase student/teacher co-operation.

To this end it is useful to have answers to some obvious questions. What is the current ideology in educational circles of influence? What is the common ideology among the greater part of current day teachers? Is it of any influence? Can it be of any influence, good or bad? These are important questions which can be studied empirically and are studied empirically. But as I am not qualified to address them, I shall make a brief comment and conclude this section with a personal impression. My comment is on the view of education as officially expressed recently [i.e., around 1970] by the provincial government of Ontario in a glossy document [*Living and Learning*, 1968] which, I am told, is a standard target of criticism here [i.e., in the Ontario Institute for Studies in Education]. Let me make the following observation on it, assuming its characteristics to be quite general. To begin with, the document endorses all the reformist educational philosophies around; with no feel for consistency, it repeats every high-sounding suggestion, seemingly more anxious to sound progressive than anything else. Its inconsistencies, even, are banal; more freedom and more instruction are needed (put more into the curriculum and have more study hall). When it comes to practical proposals, the teacher is told to allow the creative pupil to create even at the cost of allowing him to deviate slightly from routine. The operative word is "slightly." Now, in all schools that I have ever seen, some students are given special allowances if they can produce something outstanding which can be displayed at PTA meetings and at visitations or inspections of educational authorities or of civic bodies. The progressive report has nothing more to recommend and, implicitly, it endorses the horrid repressive measures that children not branded creative have to suffer. There is a vacuum here we may try to fill with an ideology that can be applied now and in a direct manner.

Let me add to that end, before closing this section, another personal impression. My interest in education has led me for decades to ask high school teachers, university professors, and other educators some very general and rather superficial questions regarding both the curriculum and instruction. Ever since I discovered, to my amazement, how beautiful are some items in the curriculum which look so horrid in school (remember Alfred North Whitehead's observation that high school had spoiled *King Lear* for him personally, and for good) I have pestered these people with such questions as why teach traditional high school versions of Euclidean geometry to non-mathematicians. I feel I must report it, incredible as it is, that ever so often mathematics teachers honestly believe that traditional Euclidean geometry sharpens the mind, and that it is useful, and that its study enriches the student's life. I will not condescend to the level of refuting these flimsy contentions. Those who honestly think there is truth in them are advised to glance at the empirical literature, meager as it is, for the abundant refutations. Further, I wish to report that most high school teachers, university professors, and other educators – reformers or not – including all of my teachers, from kindergarten to graduate school, are such avowed educational paternalists that they view educational liberalism more as a tease than an honest theory. I cannot complain since I consider their view as something even less than a tease; but I feel it is worth reporting such facts of one person's experience.

Proposals for Immediate Reform

The question is, what to do right now, and how? The target should be the immediate suffering of students and others ensuing from the illiberality of the system. Students from elementary school to graduate school all over the world suffer from two very painful complaints. One is boredom. The other is bewilderment, or a sense of being lost, or a sense of inadequacy, or even an incomprehensible but profound sense of failure, often tainted with a sense of guilt, and, in severe cases, of despair. It is difficult to say which complaint is more painful, that of boredom or that of bewilderment. Fortunately, if we attack the student's sense of boredom *intelligently* (by which I mean while enlisting his co-operation), his sense of bewilderment will disappear or diminish at once. By enlisting his co-operation, we let him know that the inadequacy and failure are those of the general educational system, that he need not feel lost or guilty or desperate. And as bewilderment and boredom go together, winning the battle against one can be won simply by winning the battle against the other.

Let me make a point clear. It was the idea of the Age of Reason that man is essentially good, that his corruption is due to the prejudice and the bigotry and the sectarianism of his specific culture. It became liberal practice to repeat the dubious old Roman saying, "Every Senator is a good man; the Senate, however, is a beast." Freudianism gave this doctrine its final touch: the fault is not of the student but of the (educational) system. It is now the key to indulgence and self-indulgence the likes of which were never even dreamt of by Freud, let alone by his predecessors. When speaking of the evils of the general educational system, however, we should take care to avoid assertions conducive to indulgence or self-indulgence. In fact, we need neither attack nor defend the system as such. For, to say a student need not be bored by school, stay in class, or follow the curriculum, is not to ask whose fault is his failing to do so; nor is it to blame the general (educational) system. Rather, it is the educational reformer who does believe that a student should follow the curriculum who will usually blame the general (educational) system for the student's alleged failing. Indeed, my whole point is this: once the student learns that some people think his alleged failure is no failure at all, then he can begin to learn to fight boredom, and by this, his position will vastly improve. Those who do not believe this can try it out as a simple and obvious experiment. I have.

The way to teach students to fight boredom is, briefly, by talking to them as equals. The key attitude is not love but respect (Korczak), with minimum effort, the student can learn some educational philosophy (and some of its major applications) and very soon he'll outsmart the teacher. This will reduce boredom quite considerably, and lead to replacing the painful and harmful bitterness with the healthy conflict of ideas.

There are technicalities involved, skills which are extremely useful and not difficult to acquire, such as the use of tables of contents, prefaces, and indexes, the use of school libraries, or those of the local college or the local community, the search for better materials than those used by the teacher, including texts on non-Euclidean geometry or history from points of view opposed to that of the teacher. Students can be trained to do some window-shopping and use the little liberty the school offers more efficiently than now-perhaps with the aid of student consultation committees in the college or the dorm. Students will be delighted to read some of the common teachers' manuals, and instead of sitting bored in class as students and receptors, sit there as observers and mock-supervisors, critically comparing observations of different teachers with each other, and quoting the manual to deviant teachers perhaps. It is amazing how successful the college teacher evaluation books are, yet how poor they are in their assessments, or rather in the criteria of assessment involved, how little divergent opinion they offer. The college capsule texts are aimed at pleasing professors; they would be greater fun and more useful if

they transcended the limits set by the teacher – not, I hope I am clear on this, by cramming more material but rather by eliminating more, and by presenting the rest more intelligently (i.e., by explaining their criteria, reporting controversies, etc.). They can start with the discussion of the aim and purpose of the course, the conflicting sets of fundamental principles employed by the various schools of thought involved, the intellectual or other significance of items or techniques which the student is supposed to memorize and master; in brief, by spending more space on provoking thought, and less on memorization.

If we can teach the student on any level of educational philosophy, the theory of critical debate as a theory of learning and of scientific method, if we can give him the few rudimentary tools of self-education, including the requesting of instruction, the questioning of instructors, and the use of oral debate, of libraries, and of some writing facility, then he is bound to find teachers and peers with whom he can converse intelligently. This is the outline of one point of my proposal which can be elaborated in more detail. The details should be put to empirical test and improved by trial and error and by public discussion. The question which is harder to answer is, who should do the job of disseminating these ideas, of pooling experiences, and of disseminating empirical debates on improving them?

I recommend neither fighting the (general educational) system from the outside, nor fighting it entirely from the inside, but rather building an independent informal movement partly within the system in question. From the outside, the best battle is run by the free schools and experimental schools, and the movement I propose to construct should keep in touch with them. But millions of students today suffer from pressures that will not be alleviated by the mere existence of free and of experimental schools. As to fighting from the inside, there is one phenomenon to beware of. It is the phenomenon of the utterly ineffective struggle of Communists and of Catholics who stay inside their organizations, of which they are critical, allegedly to fight its evils, as a way of achieving efficiency, but in fact out of sheer dependence. For, they may have some measure of intellectual independence from their organizations, but no emotional independence. In such cases, the criticism they level is rather impotent. If the dependence is technical – say, financial – the situation is more hopeful; and, of course, when there is no dependence, the freedom to act from within may indeed be useful.

The school reform movement should be a liberal movement; as such, it wants no martyrs and no retributions. The reform should cause as little pain as possible to either reformer or defender of the old ways; only the student's right not to suffer unnecessary boredom and everyone's right to the freedom of debate should be reinstated and guarded.

The burden of much of the preliminary work can fall on the shoulders of tenured university professors and tenured established teachers and on the staff of educational research institutions. Moreover, these people should benefit from the reforms at once. Researchers will be able to view their activities as empirical researches, promote new kinds of research publications, similar to teacher-evaluation literature, teachers' educational literature, and learned educational journals all wrapped together. Professors should benefit from this too by canceling the curriculum in every course they teach and by making training for independent work the cardinal part of every course they teach, beginning with the discussion, in class, of the agenda of the course itself and teaching the class to draw an agenda.

The greatest burden on professors is reading inadequate student material such as term papers and exam papers. Admittedly, even adequate student material can be a burden when it comes in large quantities. But this is barely a problem since when it does come in large quantities professors employ graders. Graders may pose a problem, but this is solvable if the professor decides clearly what he wants. The reason that inadequate papers are so problematic is that the

professor tries hard to find what the student wants, which shows that he does not know what he himself wants. Suppose he decides to grade papers low without putting too much effort into reading them when he discovers that they are hard to read. If students know this in advance – as it is their right – then they will adjust. It turns out that if students believe a professor, they will consult him about his requirements; and in turn, he will read their papers with them, sentence by sentence, and they will work together on the rewriting. There will be much useful work but there will be no sense of frustration – at least not the sense of frustration one experiences reading badly constructed sentences when the semester is over and chances to meet the student again are very low. And if one has too many students to teach, one can teach one's graders to teach them, or do the exercises in the classroom instead of giving dull lectures.

This does not apply to teaching assistants. Every teaching assistant who is worth his salt knows that if he does a routine bad job he is O.K., but if he experiments some student is bound to complain and make trouble by a simple complaint (and complaints are randomly distributed), regardless of the rights and wrongs of the complaint itself. It is wrong to tell the teaching assistant to be a coward and wait till he has been established; it is also wrong to tell him to get into trouble and lose his job. There are various ways to cope with this. In my college [Boston University College of Liberal Arts], freshmen seminars were instituted [in the late sixties] for the express purpose of encouraging instructors – mostly teaching fellows – to experiment. This effort was almost entirely a failure and was soon brought to an end. The teaching assistant has to learn how to do a routine job with minimal effort, how to improve it wherever he is covered by the regulations (every member of the movement should be advised to know the regulations of his institution as well as possible and to use all the liberties the system offers), and how to use spare time to enlist the good will of those students who wish to experiment while allowing the rest to use the old method with impunity. He can offer some reward for the new ways, but if he does this significantly, he is bound to cause strong ambivalences in students who favor the old method – and they will complain. They will say there is injustice but they will thereby express the pain of ambivalence.

On the whole, members of the reform movement should be scrupulous as to fairness, especially fairness toward the upholders of the traditional modes and values; but they should do everything they can to raise discussion aimed at improvement without thereby risking their own jobs. And they should play down, as much as possible, the whole idea of rewards. All rewards in education are very degrading. If education is oriented to pragmatic matters, such as vocational training, surely the reward, or rather the expected reward, lies outside the educational system. In as much as education offers internal rewards, there are none greater than the growing sense of dignity and of pleasure in self-improvement. The only reasonable function of grading is to help young students learn to assess themselves. Today, grading, especially in large colleges, hardly helps in this direction. And the outcome is mistrust between student and faculty. Dignity must be preserved above all.

Those who are willing to promote dignity in all the communication channels open to students, faculty, and staff, all those who are willing to open new channels of communication, pool experiences, and disseminate new results, can build the movement and force the system to become more rational and more humane. Their message should be that we can treat the student as an equal, that is to say, respect his wishes – even though this will impose on us the possibility that he will reject the curriculum offhand and without even allowing us to protest.

Conclusion

Let me describe the place of my view of educational reform in my social philosophy in general. The most important part of my social philosophy is liberalism. But I dissent from the

liberalism of the Age of Reason as simplistic and somewhat utopian. (See my *Towards a Rational Philosophical Anthropology* of 1977.) I consider most of the curriculum not so much a great evil as an utterly redundant one and as a hindrance and impediment for educational experimentation. But I do not think that school will be, or should try to be, utopian to any degree. On the contrary, the real troubles of schooling will come to the surface when the silly and redundant ones have been done away with. For example, there is the law of the land, and it is far from perfect, and it operates in school both generally and in specific educational acts and administrative rules and regulations – especially in financial matters. As another example, if school abolishes the curriculum, the law of the land will impose some part of it – as it does now even though less conspicuously so, of course. Thus, those who wish to practice skills, whether masonry or medicine, will have to pass certain examinations to qualify. These will never be quite adequate, though they need not be as inadequate as they are these days. With respect to the last example, students need not stay in the classroom, and forcing them to do so is criminal folly; but the law requires, rightly or wrongly, that they stay on the premises of their chosen school so many days a year. And so on. But pressures from society can be met by student and teacher together in co-operation, not by teachers transmitting them to students. It is the teacher's volunteering to be society's instrument that must be abolished, and by the teacher himself.

I do not know when this will take place. I do not know for how long we will have to endure compulsory instruction and the detailed, largely boring curriculum. Perhaps a generation or two must pass before the desert generation passes away and a new breed of administrator and faculty develops who will be able to handle their school's affairs with dignity. Possibly more and more free or experimental schools will open, public and private, more and more high schools and small colleges will cancel exams and go even more boldly experimental. But today, millions of school children and college students are facing years of boring classes with umpteen multiple-choice exams, and similar draconic devices. Of these, millions can learn to suffer less if they are told that some educators view their suffering as unnecessary and unjust. Millions of students will be less miserable if they hear about liberal or egalitarian teachers, and if they learn that giving a random answer or a plausible answer in a multiple-choice exam raises one's chances of success (except sometimes in exams with penalties for errors). The application of the calculus of probability to multiple-choice exams is child's play, and learning it is useful for this and for other purposes in life as well. We have to tell those who suffer from exams what we think of exams and that sometimes we know how to defeat them. This is a small practical matter, but for present victims it may be an urgent matter of some import.

Before I close, let me say the obvious. Why am I against multiple-choice exams, whether in high school or in the national board exam for candidates for medical degrees? Why am I so opposed to the general educational system? My reason is this. Memorizing has proven futile. Most of the curriculum has proven harmful. Teachers use techniques like exams or multiple-choice in a desperate effort to cope with an impossible situation, doing what is not of any use, partly from not knowing what to do, partly from fear that if they experiment they may be punished. What we need is an educational system where the exchange of ideas and criticism are welcomed, criticism of any quality and from anywhere, including from students. This can be encouraged only where experiment is encouraged, if not rewarded, and where responsible experimentation is protected against penalty when it fails. But we need clear criteria for responsible experiments – criteria which should be independent of questions of success or failure. And we need a method of pooling experiences to avoid repeating old errors, and certainly to abolish present methods, such as memorizing, based on long-refuted educational and psychological theories. The idea of a democratic responsible citizenry should make us

hope for an active student body, not for passive nice kids; attempts to make students passive channel their excess energies into hostility and violence. Teachers ought to be protected from student aggression, and then they can welcome clashes of ideas with them to everyone's benefit, particularly to the benefit of all who now suffer from boredom and who would thrive on intellectual activity. Above all, we need trial and error and the pooling of the results for public benefit. I sincerely hope that the present institution [The Ontario Institute for Studies in Education] and the present journal [*Interchange*] will serve the public to this end.

Note

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