The selection below is the first chapter of School and Society, by John Dewey. It was originally presented as the first of three lectures in April 1899 to an audience of parents and others interested in the Laboratory School of the University of Chicago. The Laboratory School was founded in 1896, and was merged by the University into the University School in 1904. Dewey was a professor at the University of Chicago from 1894-1904, when he left to accept an appointment as Professor of Philosophy at Columbia University.

The School and Social Progress

We are apt to look at the school from an individualistic standpoint, as something between teacher and pupil, or between teacher and parent. That which interests us most is naturally the progress made by the individual child of our acquaintance, his normal physical development, his advance in ability to read, write, and figure, his growth in the knowledge of geography and history, improvement in manners, habits of promptness, order, and industry-it is from such standards as these that we judge the work of the school. And rightly so. Yet the range of the outlook needs to be enlarged. What the best and wisest parent wants for his own child, that must the community want for all of its children. Any other ideal for our schools is narrow and unlovely; acted upon, it destroys our democracy. All that society has accomplished for itself is put, through the agency of the school, at the disposal of its future members. All its better thoughts of itself it hopes to realize through the new possibilities thus opened to its future self. Here individualism and socialism are at one. Only by being true to the full growth of all the individuals who make it up, can society by any chance be true to itself. And in the self-direction thus given, nothing counts as much as the school, for, as Horace Mann said, "Where anything is growing, one former is worth a thousand re-formers."

Whenever we have in mind the discussion of a new movement in education, it is especially necessary to take the broader, or social view. Otherwise, changes in the school institution and tradition will be looked at as the arbitrary inventions of particular teachers; at the worst transitory fads, and at the best merely improvements in certain details—and this is the plane upon which it is too customary to consider school changes. It is as rational to conceive of the locomotive or the telegraph as personal devices. The modification going on in the method and curriculum of education is as much a product of the changed social situation, and as much an effort to meet the needs of the new society that is forming, as are changes in modes of industry and commerce.

It is to this, then, that I especially ask your attention: the effort to conceive what roughly may be termed the "New Education" in the light of larger changes in society. Can we connect this "New Education" with the general march of events? If we can, it will lose its isolated character, and will cease to be an affair which proceeds only from the over-ingenious minds of pedagogues dealing with particular pupils. It will appear as part and parcel of the whole social evolution, and, in its more general features at least, as inevitable. Let us then ask after the main aspects of the social movement; and afterwards turn to the school to find what witness it gives of effort to put itself in line. And since it is quite impossible to cover the whole ground, I shall for the most part confine myself to one typical thing in the modern school movement—that which passes under the name of

manual training, hoping if the relation of that to changed social conditions appears, we shall be ready to concede the point as well regarding other educational innovations.

I make no apology for not dwelling at length upon the social changes in question. Those I shall mention are writ so large that he who runs may read. The change that comes first to mind, the one that overshadows and even controls all others, is the industrial one-the application of science resulting in the great inventions that have utilized the forces of nature on a vast and inexpensive scale: the growth of a world-wide market as the object of production, of vast manufacturing centers to supply this market, of cheap and rapid means of communication and distribution between all its parts. Even as to its feebler beginnings, this change is not much more than a century old; in many of its most important aspects it falls within the short span of those now living. One can hardly believe there has been a revolution in all history so rapid, so extensive, so complete. Through it the face of the earth is making over, even as to its physical forms; political boundaries are wiped out and moved about, as if they were indeed only lines on a paper map; population is hurriedly gathered into cities from the ends of the earth; habits of living are altered with startling abruptness and thoroughness; the search for the truths of nature is infinitely stimulated and facilitated and their application to life made not only practicable, but commercially necessary. Even our moral and religious ideas and interests, the most conservative because the deepest-lying things in our nature, are profoundly affected. That this revolution should not affect education in other than formal and superficial fashion is inconceivable.

Back of the factory system lies the household and neighborhood system. Those of us who are here today need go back only one, two, or at most three generations, to find a time when the household was practically the center in which were carried on, or about which were clustered, all the typical forms of industrial occupation. The clothing worn was for the most part not only made in the house, but the members of the household were usually familiar with the shearing of the sheep, the carding and spinning of the wool, and the plying of the loom. Instead of pressing a button and flooding the house with electric light, the whole process of getting illumination was followed in its toilsome length, from the killing of the animal and the trying of fat, to the making of wicks and dipping of candles. The supply of flour, of lumber, of foods, of building materials, of household furniture, even of metal ware, of nails, hinges, hammers, etc., was in the immediate neighborhood, in shops which were constantly open to inspection and often centers of neighborhood congregation. The entire industrial process stood revealed, from the production on the farm of the raw materials, till the finished article was actually put to use. Not only this, but practically every member of the household had his own share in the work. The children, as they gained in strength and capacity, were gradually initiated into the mysteries of the several processes. It was a matter of immediate and personal concern, even to the point of actual participation.

We cannot overlook the factors of discipline and of character-building involved in this: training in habits of order and of industry, and in the idea of responsibility, of obligation to do something, to produce something, in the world. There was always something which really needed to be done, and a real necessity that each member of the household should do his own part faithfully and in cooperation with others. Personalities which became effective in action were bred and tested in the medium of action. Again, we cannot overlook the importance for educational purposes of the close and intimate acquaintance got with nature at first hand, with real things and materials, with the actual processes of their manipulation, and the knowledge of their social necessities and uses. In all this there was continual training of observation, of ingenuity, constructive imagination, of logical thought, and of the sense of reality acquired through first-hand contact with actualities. The educative forces of the domestic spinning and weaving, of the saw-mill, the gristmill, the cooper shop, and the blacksmith forge, were continuously operative.

No number of object-lessons, got up as object-lessons for the sake of giving information, can afford even the shadow of a substitute for acquaintance with the plants and animals of the farm and garden, acquired through actual living among them and caring for them. No training of sense-organs in school, introduced for the sake of training, can begin to compete with the alertness and fullness of sense-life that comes through daily intimacy and interest in familiar occupations. Verbal memory can be trained in committing tasks, a certain discipline of the reasoning powers can be acquired through lessons in science and mathematics; but, after all, this is somewhat remote and shadowy compared with the training of attention and of judgment that is acquired in having to do things with a real motive behind and a real outcome ahead. At present, concentration of industry and division of labor have practically eliminated household and neighborhood occupations-at least for educational purposes. But it is useless to bemoan the departure of the good old days of children's modesty, reverence, and implicit obedience, if we expect merely by bemoaning and by exhortation to bring them back. It is radical conditions which have changed, and only an equally radical change in education suffices. We must recognize our compensations-the increase in toleration, in breadth of social judgment, the larger acquaintance with human nature, the sharpened alertness in reading signs of character and interpreting social situations, greater accuracy of adaptation to differing personalities, contact with greater commercial activities. These considerations mean much to the city-bred child of today. Yet there is a real problem: how shall we retain these advantages, and yet introduce into the school something representing the other side of life-occupations which exact personal responsibilities and which train the child with relation to the physical realities of life?

When we turn to the school, we find that one of the most striking tendencies at present is toward the introduction of so-called manual training, shop-work, and the household arts—sewing and cooking.

This has not been done "on purpose," with a full consciousness that the school must now supply that factor of training formerly taken care of in the home, but rather by instinct, by experimenting and finding that such work takes a vital hold of pupils and gives them something which was not to be got in any other way. Consciousness of its real import is still so weak that the work is often done in a half-hearted, confused, and unrelated way. The reasons assigned to justify it are painfully inadequate or sometimes even positively wrong.

If we were to cross-examine even those who are most favorably disposed to the introduction of this work into our school system, we should, I imagine, generally find the main reasons to be that such work engages the full spontaneous interest aim attention of the children. It keeps them alert and active, instead of passive and receptive, it makes them more useful, more capable, and hence more inclined to be helpful at home; it prepares them to some extent for the practical duties of later life—the girls to be more

efficient house managers, if not actually cooks and seamstresses; the boys (were our educational system only adequately rounded out into trade schools) for their future vocations. I do not underestimate the worth of these reasons. Of those indicated by the changed attitude of the children I shall indeed have something to say in my next talk, when speaking directly of the relationship of the school to the child. But the point of view is, upon the whole, unnecessarily narrow. We must conceive of work in wood and metal, of weaving, sewing, and cooking, as methods of life not as distinct studies.

We must conceive of them in their social significance, as types of the processes by which society keeps itself going, as agencies for bringing home to the child some of the primal necessities of community life, and as ways in which these needs have been met by the growing insight and ingenuity of man; in short, as instrumentalities through which the school itself shall be made a genuine form of active community life, instead of a place set apart in which to learn lessons.

A society is a number of people held together because they are working along common lines, in a common spirit, and with reference to common aims. The common needs and aims demand a growing interchange of thought and growing unity of sympathetic feeling. The radical reason that the present school cannot organize itself as a natural social unit is because just this element of common and productive activity is absent. Upon the playground, in game and sport, social organization takes place spontaneously and inevitably. There is something to do, some activity to be carried on, requiring natural divisions of labor, selection of leaders and followers, mutual cooperation and emulation. In the schoolroom the motive and the cement of social organization are alike wanting. Upon the ethical side, the tragic weakness of the present school is that it endeavors to prepare future members of the social order in a medium in which the conditions of the social spirit are eminently wanting.

The difference that appears when occupations are made the articulating centers of school life is not easy to describe in words; it is a difference in motive, of spirit and atmosphere. As one enters a busy kitchen in which a group of children are actively engaged in the preparation of food, the psychological difference, the change from more or less passive and inert recipiency and restraint to one of buoyant outgoing energy, is so obvious as fairly to strike one in the face. Indeed, to those whose image of the school is rigidly set the change is sure to give a shock. But the change in the social attitude is equally marked. The mere absorption of facts and truths is so exclusively individual an affair that it tends very naturally to pass into selfishness. There is no obvious social motive for the acquirement of mere learning, there is no clear social gain in success thereat. Indeed, almost the only measure for success is a competitive one, in the bad sense of that term—a comparison of results in the recitation or in the examination to see which child has succeeded in getting ahead of others in storing up, in accumulating the maximum of information. So thoroughly is this the prevalent atmosphere that for one child to help another in his task has become a school crime. Where the school work consists in simply learning lessons, mutual assistance, instead of being the most natural form of cooperation and association, becomes a clandestine effort to relieve one's neighbor of his proper duties. Where active work is going on all this is changed. Helping others, instead of being a form of charity which impoverishes the recipient, is simply an aid in setting free the powers and furthering the impulse of the one helped. A spirit of free communication, of interchange of ideas, suggestions, results, both successes and failures of previous experiences, becomes the dominating note of the recitation. So far as emulation enters in, it is in the comparison of individuals, not with regard to the quantity of information personally absorbed, but with reference to the quality of work done—the genuine community standard of value. In an informal but all the more pervasive way, the school life organizes itself on a social basis.

Within this organization is found the principle of school discipline or order. Of course, order is simply a thing which is relative to an end. If you have the end in view of forty or fifty children learning certain set lessons, to be recited to a teacher, your discipline must be devoted to securing that result. But if the end in view is the development of a spirit of social cooperation and community life, discipline must grow out of and be relative to this. There is little order of one sort where things are in process of construction; there is a certain disorder in any busy workshop; there is not silence; persons are not engaged in maintaining certain fixed physical postures; their arms are not folded; they are not holding their books thus and so. They are doing a variety of things, and there is the confusion, the bustle, that results from activity. But out of occupation, out of doing things that are to produce results, and out of doing these in a social and cooperative way, there is born a discipline of its own kind and pet Our whole conception of school discipline changes when we get this point of view. In critical moments we all realize that the only discipline that stands by us, the only training that becomes intuition, is that got through life itself. That we learn from experience, and from books or the sayings of others only as they are related to experience, are not mere phrases. But the school has been so set apart, so isolated from the ordinary conditions and motives of life that the place where children are sent for discipline is the one place in the world where it is most difficult to get experience—the mother of all discipline worth the name. It is only where a narrow and fixed image of traditional school discipline dominates, that one is in any danger of overlooking that deeper and infinitely wider discipline that comes from having a part to do in constructive work, in contributing to a result which, social in spirit, is none the less obvious and tangible in form-and hence in a form with reference to which responsibility may be exacted and accurate judgment passed.

The great thing to keep in mind, then, regarding the introduction into the school of various forms of active occupation, is that through them the entire spirit of the school is renewed. It has a chance to affiliate itself with life, to become the child's habitat, where he learns through directed living; instead of being only a place to learn lessons having an abstract and remote reference to some possible living to be done in the future. It gets a chance to be a miniature community, an embryonic society. This is the fundamental fact, and from this arise continuous and orderly sources of instruction. Under the industrial regime described, the child, after all, shared in the work, not for the sake of the sharing, but for the sake of the product. The educational results secured were real, yet incidental and dependent. But in the school the typical occupations followed are freed from all economic stress. The aim is not the economic value of the products, but the development of social power and insight. It is this liberation from narrow utilities, this openness to the possibilities of the human spirit that makes these practical activities in the school allies of art and centers of science and history.

The unity of all the sciences is found in geography. The significance of geography is that it presents the earth as the enduring home of the occupations of man. The world without its relationship to human activity is less than a world. Human industry and achievement, apart from their roots in the earth, are not even a sentiment, hardly a name. The earth is the final source of all man's food. It is his continual shelter and protection, the raw material of all his activities, and the home to whose humanizing and idealizing all his achievement returns. It is the great field, the great mine, the great source of the energies of heat, light, and electricity; the great scene of ocean, stream, mountain, and plain, of which all our agriculture and mining and lumbering, all our manufacturing and distributing agencies, are but the partial elements and factors. It is through occupations determined by this environment that mankind has made its historical and political progress. It is through these occupations that the intellectual and emotional interpretation of nature has been developed. It is through what we do in and with the world that we read its meaning and measure its value.

In educational terms, this means that these occupations in the school shall not be mere practical devices or modes of routine employment, the gaining of better technical skill as cooks, seamstresses, or carpenters, but active centers of, scientific insight into natural materials and processes, points of departure whence children shall be led out into a realization of the historic development of man. The actual significance of this can be told better through one illustration taken from actual school work than by general discourse.

There is nothing which strikes more oddly upon the average intelligent visitor than to see boys as well as girls of ten, twelve, and thirteen years of age engaged in sewing and weaving. If we look at this from the standpoint of preparation of the boys for sewing on buttons and making patches, we get a narrow and utilitarian conception-a basis that hardly justifies giving prominence to this sort of work in the school. But if we look at it from another side, we find that this work gives the point of departure from which the child can trace and follow the progress of mankind in history, getting an insight also into the materials used and the mechanical principles involved. In connection with these occupations, the historic development of man is recapitulated. for example, the children arc first given the raw material -- the flax, the cotton plant, the wool as it comes from the back of the sheep (if we could take them to the place where the sheep are sheared, so much the better). Then a study is made of these materials from the standpoint of their adaptation to the uses to which they may be put. For instance, a comparison of the cotton fiber with wool fiber is made. I did not know until the children told me, that the reason for the late development of the cotton industry as compared with the woolen is, that the cotton fiber is so very difficult to free by hand from the seeds. The children in one group worked thirty minutes freeing cotton fibers from the boll and seeds, and succeeded in getting out less than one ounce. They could easily believe that one person could only gin one pound a day by hand, and could understand why their ancestors wore woolen instead of cotton clothing. Among other things discovered as affecting their relative utilities, was the shortness of the cotton fiber as compared with that of wool, the former being one-tenth of an inch in length, while that of the latter is an inch in length; also that the fibers of cotton are smooth and do not cling together, while the wool has a certain roughness which makes the fibers stick, thus assisting the spinning. The children worked this out for themselves with the actual material, aided by questions and suggestions from the teacher.

They then followed the processes necessary for working the fibers up into cloth. They re-invented the first frame for carding the wool—a couple of boards with sharp pins

in them for scratching it out. They re-devised the simplest process for spinning the wool-a pierced stone or some other weight through which the wool is passed, and which as it is twirled draws out the fiber; next the top, which was spun on the floor, while the children kept the wool in their hands until it was gradually drawn out and wound upon it. Then the children are introduced to the invention next in historic order, working it out experimentally, thus seeing its necessity, and tracing its effects, not only upon that particular industry, but upon modes of social life-in this way passing in review the entire process up to the present complete loom, and all that goes with the application of science in the use of our present available powers. I need not speak of the science involved in this -- the study of the fibers, of geographical features, the conditions under which raw materials are grown, the great centers of manufacture and distribution, the physics involved in the machinery of production; nor, again, of the historical side-the influence which these inventions have had upon humanity. You can concentrate the history of all mankind into the evolution of the flax, cotton, and wool fibers into clothing. I do not mean that this is the only, or the best, center. But it is true that certain very real and important avenues to the consideration of the history of the race are thus opened -that the mind is introduced to much more fundamental and controlling influences than usually appear in the political and chronological records that pass for history.

Now, what is true of this one instance of fibers used in fabrics (and, of course, I have only spoken of one or two elementary phases of that) is true in its measure of every material used in every occupation, and of the processes employed. The occupation supplies the child with a genuine motive; it gives him experience at first hand; it brings him into contact with realities. It does all this, but in addition it is liberalized throughout by translation into its historic values and scientific equivalencies. With the growth of the child's mind in power and knowledge it ceases to be a pleasant occupation merely, and becomes more and more a medium, an instrument, an organ—and is thereby transformed.

This, in turn, has its bearing upon the teaching of science. Under present conditions, all activity, to be successful, has to be directed somewhere and somehow by the scientific expert—it is an ease of applied science. This connection should determine its place in education. It is not only that the occupations, the so-called manual or industrial work in the school, give the opportunity for the introduction of science which illuminates them, which makes them material, freighted with meaning, instead of being mere devices of hand and eye; but that the scientific insight thus gained becomes an indispensable instrument of free and active participation in modern social life. Plato somewhere speaks of the slave as one who in his actions does not express his own ideas, but those of some other man. It is our social problem now, even more urgent than in the time of Plato, that method, purpose, understanding, shall exist in the consciousness of the one who does the work, that his activity shall have meaning to himself.

When occupations in the school are conceived in this broad and generous way, I can only stand lost in wonder at the objections so often heard, that such occupations are out of place in the school because they are materialistic, utilitarian, or even menial in their tendency. It sometimes seems to me that those who make these objections must live in quite another world. The world in which most of us live is a world in which everyone has a calling and occupation, something to do. Some are managers and others are subordinates. But the great thing for one as for the other is that each shall have had the education which enables him to see within his daily work all there is in it of large and

human significance. How many of the employed are today mere appendages to the machines which they operate! This may be due in part to the machine itself, or to the regime which lays so much stress upon the products of the machine; but it is certainly due in large part to the fact that the worker has had no opportunity to develop his imagination and his. sympathetic insight as to the social and scientific values found in his work. At present, the impulses which lie at the basis of the industrial system are either practically neglected or positively distorted during the school period. Until the instincts of construction and production are systematically laid hold of in the years of childhood and youth, until they are trained in social directions, enriched by historical interpretation, controlled and illuminated by scientific methods, we certainly are in no position even to locate the source of our economic evils, much less to deal with them effectively.

If we go back a few centuries, we find a practical monopoly of learning. The term possession of learning as, indeed, a happy one. Learning was a class matter. This was a necessary result of social conditions. There were not in existence any means by which the multitude could possibly have access to intellectual resources. These were stored up and hidden away in manuscripts. Of these there were at best only a few, and it required long and toilsome preparation to be able to do anything with them. A high-priesthood of learning, which guarded the treasury of truth and which doled it out to the masses under severe restrictions, was the inevitable expression of these conditions. But, as a direct result of the industrial revolution of which we have been speaking, this has been changed. Printing was invented; it was made commercial. Books, magazines, papers were multiplied and cheapened. As a result of the locomotive and telegraph, frequent, rapid, and cheap intercommunication by mails and electricity was called into being. Travel has been rendered easy; freedom of movement, with its accompanying exchange of ideas, indefinitely facilitated. The result has been an intellectual revolution. Learning has been put into circulation. While there still is, and probably always will be, a particular class having the special business of inquiry in hand, a distinctively learned class is henceforth out of the question. It is an anachronism. Knowledge is no longer an immobile solid; it has been liquefied. It is actively moving in all the currents of society itself.

It is easy to see that this revolution, as regards the materials of knowledge, carries with it a marked change in the attitude of the individual. Stimuli of an intellectual sort pour in upon us in all kinds of ways. The merely intellectual life, the life of scholarship and of learning, thus gets a very altered value. Academic and scholastic, instead of being titles of honor, are becoming terms of reproach.

But all this means a necessary change in the attitude of the school, one of which we are as yet far from realizing the full force. Our school methods, and to a very considerable extent our curriculum, are inherited from the period when learning and command of certain symbols, affording as they did the only access to learning, were allimportant. The ideals of this period are still largely in control, even where the outward methods and studies have been changed. We sometimes hear the introduction of manual training, art and science into the elementary, and even the secondary schools, deprecated on the ground that they tend toward the production of specialists -- that they detract from our present scheme of generous, liberal culture. The point of this objection would be ludicrous if it were not often so effective as to make it tragic. It is our present education which is highly specialized, one-sided and narrow. It is an education dominated almost entirely by the mediaeval conception of learning. It is something which appeals for the most part simply to the intellectual aspect of our natures, our desire to learn, to accumulate information, and to get control of the symbols of learning; not to our impulses and tendencies to make, to do, to create, to produce, whether in the form of utility or of art. The very fact that manual training, art and science are objected to as technical, as tending toward mere specialism, is of itself as good testimony as could be offered to the specialized aim which controls current education. Unless education had been virtually identified with the exclusively intellectual pursuits, with learning as such, all these materials and methods would be welcome, would be greeted with the utmost hospitality.

While training for the profession of learning is regarded as the type of culture, as a liberal education, that of a mechanic, a musician, a lawyer, a doctor, a farmer, a merchant, or a railroad manager is regarded as purely technical and professional. The result is that which we see about us everywhere -- the division into "cultured" people and "workers," the separation of theory and practice. Hardly one per cent of the entire school population ever attains to what we call higher education; only five per cent to the grade of our high school; while much more than half leave on or before the completion of the fifth year of the elementary grade. The simple facts of the case are that in the great majority of human beings the distinctively intellectual interest is not dominant. They have the socalled practical impulse and disposition. In many of those in whom by nature intellectual interest is strong, social conditions prevent its adequate realization. Consequently by far the larger number of pupils leave school as soon as they have acquired the rudiments of learning, as soon as they have enough of the symbols of reading, writing, and calculating to be of practical use to them in getting a living. While our educational leaders are talking of culture, the development of personality, etc., as the end and aim of education, the great majority of those who pass under the tuition of the school regard it only as a narrowly practical tool with which to get bread and butter enough to eke out a restricted life. If we were to conceive our educational end and aim in a less exclusive way, if we were to introduce into educational processes the activities which appeal to those whose dominant interest is to do and to make, we should find the hold of the school upon its members to be more vital, more prolonged, containing more of culture.

But why should I make this labored presentation? The obvious fact is that our social life has undergone a thorough and radical change. If our education is to have any meaning for life, it must pass through an equally complete transformation. This transformation is not something to appear suddenly, to be executed in a day by conscious purpose. It is already in progress. Those modifications of our school system which often appear (even to those most actively concerned with them, to say nothing of their spectators) to be mere changes of detail, mere improvement within the school mechanism, are in reality signs and evidences of evolution. The introduction of active occupations, of nature study, of elementary science, of art, of history; the relegation of the merely symbolic and formal to a secondary position; the change in the moral school atmosphere, in the relation of pupils and teachers - of discipline; the introduction of more active, expressive, and self-directing factors-all these are not mere accidents, they are necessities of the larger social evolution. It remains but to organize all these factors, to appreciate them in their fullness of meaning, and to put the ideas and ideals involved into complete, uncompromising possession of our school system. To do this means to make each one of our schools an embryonic community life, active with types of occupations that reflect the life of the larger society, and permeated throughout with the spirit of art, history, and science. When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self-direction, we shall have the deepest and best guarantee of a larger society which is worthy, lovely, and harmonious.

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