

Chapter Four: Education as Growth

1. The Conditions of Growth. In directing the activities of the young, society determines its own future in determining that of the young. Since the young at a given time will at some later date compose the society of that period, the latter's nature will largely turn upon the direction children's activities were given at an earlier period. This cumulative movement of action toward a later result is what is meant by growth.

The primary condition of growth is immaturity. This may seem to be a mere truism -- saying that a being can develop only in some point in which he is undeveloped. But the prefix "im" of the word immaturity means something positive, not a mere void or lack. It is noteworthy that the terms "capacity" and "potentiality" have a double meaning, one sense being negative, the other positive. Capacity may denote mere receptivity, like the capacity of a quart measure. We may mean by potentiality a merely dormant or quiescent state -- a capacity to become something different under external influences. But we also mean by capacity an ability, a power; and by potentiality potency, force. Now when we say that immaturity means the possibility of growth, we are not referring to absence of powers which may exist at a later time; we express a force positively present -- the ability to develop.

Our tendency to take immaturity as mere lack, and growth as something which fills up the gap between the immature and the mature is due to regarding childhood comparatively, instead of intrinsically. We treat it simply as a privation because we are measuring it by adulthood as a fixed standard. This fixes attention upon what the child has not, and will not have till he becomes a man. This comparative standpoint is legitimate enough for some purposes, but if we make it final, the question arises whether we are not guilty of an overweening presumption. Children, if they could express themselves articulately and sincerely, would tell a different tale; and there is excellent adult authority for the conviction that for certain moral and intellectual purposes adults must become as little children.

The seriousness of the assumption of the negative quality of the possibilities of immaturity is apparent when we reflect that it sets up as an ideal and standard a static end. The fulfillment of growing is taken to mean an accomplished growth: that is to say, an Ungrowth, something which is no longer growing. The futility of the assumption is seen in the fact that every adult resents the imputation of having no further possibilities of growth; and so far as he finds that they are closed to him mourns the fact as evidence of loss, instead of falling back on the achieved as adequate manifestation of power. Why an unequal measure for child and man?

Taken absolutely, instead of comparatively, immaturity designates a positive force or ability, -- the power to grow. We do not have to draw out or educe positive activities from a child, as some educational doctrines would have it. Where there is life, there are already eager and impassioned activities. Growth is not something done to them; it is something they do. The positive and constructive aspect of possibility gives the key to understanding the two chief traits of immaturity, dependence and plasticity. (1) It sounds absurd to hear dependence spoken of as something positive, still more absurd as a power. Yet if helplessness were all there were in dependence, no development could ever

take place. A merely impotent being has to be carried, forever, by others. The fact that dependence is accompanied by growth in ability, not by an ever increasing lapse into parasitism, suggests that it is already something constructive. Being merely sheltered by others would not promote growth. For (2) it would only build a wall around impotence. With reference to the physical world, the child is helpless. He lacks at birth and for a long time thereafter power to make his way physically, to make his own living. If he had to do that by himself, he would hardly survive an hour. On this side his helplessness is almost complete. The young of the brutes are immeasurably his superiors. He is physically weak and not able to turn the strength which he possesses to coping with the physical environment.

1. The thoroughgoing character of this helplessness suggests, however, some compensating power. The relative ability of the young of brute animals to adapt themselves fairly well to physical conditions from an early period suggests the fact that their life is not intimately bound up with the life of those about them. They are compelled, so to speak, to have physical gifts because they are lacking in social gifts. Human infants, on the other hand, can get along with physical incapacity just because of their social capacity. We sometimes talk and think as if they simply happened to be physically in a social environment; as if social forces exclusively existed in the adults who take care of them, they being passive recipients. If it were said that children are themselves marvelously endowed with power to enlist the cooperative attention of others, this would be thought to be a backhanded way of saying that others are marvelously attentive to the needs of children. But observation shows that children are gifted with an equipment of the first order for social intercourse. Few grown-up persons retain all of the flexible and sensitive ability of children to vibrate sympathetically with the attitudes and doings of those about them. Inattention to physical things (going with incapacity to control them) is accompanied by a corresponding intensification of interest and attention as to the doings of people. The native mechanism of the child and his impulses all tend to facile social responsiveness. The statement that children, before adolescence, are egotistically self-centered, even if it were true, would not contradict the truth of this statement. It would simply indicate that their social responsiveness is employed on their own behalf, not that it does not exist. But the statement is not true as matter of fact. The facts which are cited in support of the alleged pure egoism of children really show the intensity and directness with which they go to their mark. If the ends which form the mark seem narrow and selfish to adults, it is only because adults (by means of a similar engrossment in their day) have mastered these ends, which have consequently ceased to interest them. Most of the remainder of children's alleged native egoism is simply an egoism which runs counter to an adult's egoism. To a grown-up person who is too absorbed in his own affairs to take an interest in children's affairs, children doubtless seem unreasonably engrossed in their own affairs.

From a social standpoint, dependence denotes a power rather than a weakness; it involves interdependence. There is always a danger that increased personal independence will decrease the social capacity of an individual. In making him more self-reliant, it may make him more self-sufficient; it may lead to aloofness and indifference. It often makes an individual so insensitive in his relations to others as to develop an illusion of being really able to stand and act alone -- an unnamed form of insanity which is responsible for

a large part of the remediable suffering of the world.

2. The specific adaptability of an immature creature for growth constitutes his plasticity. This is something quite different from the plasticity of putty or wax. It is not a capacity to take on change of form in accord with external pressure. It lies near the pliable elasticity by which some persons take on the color of their surroundings while retaining their own bent. But it is something deeper than this. It is essentially the ability to learn from experience; the power to retain from one experience something which is of avail in coping with the difficulties of a later situation. This means power to modify actions on the basis of the results of prior experiences, the power to develop dispositions. Without it, the acquisition of habits is impossible.

It is a familiar fact that the young of the higher animals, and especially the human young, have to learn to utilize their instinctive reactions. The human being is born with a greater number of instinctive tendencies than other animals. But the instincts of the lower animals perfect themselves for appropriate action at an early period after birth, while most of those of the human infant are of little account just as they stand. An original specialized power of adjustment secures immediate efficiency, but, like a railway ticket, it is good for one route only. A being who, in order to use his eyes, ears, hands, and legs, has to experiment in making varied combinations of their reactions, achieves a control that is flexible and varied. A chick, for example, pecks accurately at a bit of food in a few hours after hatching. This means that definite coordinations of activities of the eyes in seeing and of the body and head in striking are perfected in a few trials. An infant requires about six months to be able to gauge with approximate accuracy the action in reaching which will coordinate with his visual activities; to be able, that is, to tell whether he can reach a seen object and just how to execute the reaching. As a result, the chick is limited by the relative perfection of its original endowment. The infant has the advantage of the multitude of instinctive tentative reactions and of the experiences that accompany them, even though he is at a temporary disadvantage because they cross one another. In learning an action, instead of having it given ready-made, one of necessity learns to vary its factors, to make varied combinations of them, according to change of circumstances. A possibility of continuing progress is opened up by the fact that in learning one act, methods are developed good for use in other situations. Still more important is the fact that the human being acquires a habit of learning. He learns to learn.

The importance for human life of the two facts of dependence and variable control has been summed up in the doctrine of the significance of prolonged infancy. ¹ This prolongation is significant from the standpoint of the adult members of the group as well as from that of the young. The presence of dependent and learning beings is a stimulus to nurture and affection. The need for constant continued care was probably a chief means in transforming temporary cohabitations into permanent unions. It certainly was a chief influence in forming habits of affectionate and sympathetic watchfulness; that constructive interest in the well-being of others which is essential to associated life. Intellectually, this moral development meant the introduction of many new objects of attention; it stimulated foresight and planning for the future. Thus there is a reciprocal influence. Increasing complexity of social life requires a longer period of infancy in which to acquire the needed powers; this prolongation of dependence means prolongation

of plasticity, or power of acquiring variable and novel modes of control. Hence it provides a further push to social progress.

2. Habits as Expressions of Growth. We have already noted that plasticity is the capacity to retain and carry over from prior experience factors which modify subsequent activities. This signifies the capacity to acquire habits, or develop definite dispositions. We have now to consider the salient features of habits. In the first place, a habit is a form of executive skill, of efficiency in doing. A habit means an ability to use natural conditions as means to ends. It is an active control of the environment through control of the organs of action. We are perhaps apt to emphasize the control of the body at the expense of control of the environment. We think of walking, talking, playing the piano, the specialized skills characteristic of the etcher, the surgeon, the bridge-builder, as if they were simply ease, deftness, and accuracy on the part of the organism. They are that, of course; but the measure of the value of these qualities lies in the economical and effective control of the environment which they secure. To be able to walk is to have certain properties of nature at our disposal -- and so with all other habits.

Education is not infrequently defined as consisting in the acquisition of those habits that effect an adjustment of an individual and his environment. The definition expresses an essential phase of growth. But it is essential that adjustment be understood in its active sense of control of means for achieving ends. If we think of a habit simply as a change wrought in the organism, ignoring the fact that this change consists in ability to effect subsequent changes in the environment, we shall be led to think of "adjustment" as a conformity to environment as wax conforms to the seal which impresses it. The environment is thought of as something fixed, providing in its fixity the end and standard of changes taking place in the organism; adjustment is just fitting ourselves to this fixity of external conditions. [2](#). Habit as habituation is indeed something relatively passive; we get used to our surroundings -- to our clothing, our shoes, and gloves; to the atmosphere as long as it is fairly equable; to our daily associates, etc. Conformity to the environment, a change wrought in the organism without reference to ability to modify surroundings, is a marked trait of such habituations. Aside from the fact that we are not entitled to carry over the traits of such adjustments (which might well be called accommodations, to mark them off from active adjustments) into habits of active use of our surroundings, two features of habituations are worth notice. In the first place, we get used to things by first using them.

Consider getting used to a strange city. At first, there is excessive stimulation and excessive and ill-adapted response. Gradually certain stimuli are selected because of their relevancy, and others are degraded. We can say either that we do not respond to them any longer, or more truly that we have effected a persistent response to them -- an equilibrium of adjustment. This means, in the second place, that this enduring adjustment supplies the background upon which are made specific adjustments, as occasion arises. We are never interested in changing the whole environment; there is much that we take for granted and accept just as it already is. Upon this background our activities focus at certain points in an endeavor to introduce needed changes. Habituation is thus our adjustment to an environment which at the time we are not concerned with modifying, and which supplies a leverage to our active habits.

Adaptation, in fine, is quite as much adaptation of the environment to our own activities as of our activities to the environment. A savage tribe manages to live on a desert plain. It adapts itself. But its adaptation involves a maximum of accepting, tolerating, putting up with things as they are, a maximum of passive acquiescence, and a minimum of active control, of subjection to use. A civilized people enters upon the scene. It also adapts itself. It introduces irrigation; it searches the world for plants and animals that will flourish under such conditions; it improves, by careful selection, those which are growing there. As a consequence, the wilderness blossoms as a rose. The savage is merely habituated; the civilized man has habits which transform the environment.

The significance of habit is not exhausted, however, in its executive and motor phase. It means formation of intellectual and emotional disposition as well as an increase in ease, economy, and efficiency of action. Any habit marks an inclination -- an active preference and choice for the conditions involved in its exercise. A habit does not wait, Micawber-like, for a stimulus to turn up so that it may get busy; it actively seeks for occasions to pass into full operation. If its expression is unduly blocked, inclination shows itself in uneasiness and intense craving. A habit also marks an intellectual disposition. Where there is a habit, there is acquaintance with the materials and equipment to which action is applied. There is a definite way of understanding the situations in which the habit operates. Modes of thought, of observation and reflection, enter as forms of skill and of desire into the habits that make a man an engineer, an architect, a physician, or a merchant. In unskilled forms of labor, the intellectual factors are at minimum precisely because the habits involved are not of a high grade. But there are habits of judging and reasoning as truly as of handling a tool, painting a picture, or conducting an experiment.

Such statements are, however, understatements. The habits of mind involved in habits of the eye and hand supply the latter with their significance. Above all, the intellectual element in a habit fixes the relation of the habit to varied and elastic use, and hence to continued growth. We speak of fixed habits. Well, the phrase may mean powers so well established that their possessor always has them as resources when needed. But the phrase is also used to mean ruts, routine ways, with loss of freshness, open-mindedness, and originality. Fixity of habit may mean that something has a fixed hold upon us, instead of our having a free hold upon things. This fact explains two points in a common notion about habits: their identification with mechanical and external modes of action to the neglect of mental and moral attitudes, and the tendency to give them a bad meaning, an identification with "bad habits." Many a person would feel surprised to have his aptitude in his chosen profession called a habit, and would naturally think of his use of tobacco, liquor, or profane language as typical of the meaning of habit. A habit is to him something which has a hold on him, something not easily thrown off even though judgment condemn it.

Habits reduce themselves to routine ways of acting, or degenerate into ways of action to which we are enslaved just in the degree in which intelligence is disconnected from them. Routine habits are unthinking habits: "bad" habits are habits so severed from reason that they are opposed to the conclusions of conscious deliberation and decision. As we have seen, the acquiring of habits is due to an original plasticity of our natures: to our ability to vary responses till we find an appropriate and efficient way of acting. Routine habits, and

habits that possess us instead of our possessing them, are habits which put an end to plasticity. They mark the close of power to vary. There can be no doubt of the tendency of organic plasticity, of the physiological basis, to lessen with growing years. The instinctively mobile and eagerly varying action of childhood, the love of new stimuli and new developments, too easily passes into a "settling down," which means aversion to change and a resting on past achievements. Only an environment which secures the full use of intelligence in the process of forming habits can counteract this tendency. Of course, the same hardening of the organic conditions affects the physiological structures which are involved in thinking. But this fact only indicates the need of persistent care to see to it that the function of intelligence is invoked to its maximum possibility. The short-sighted method which falls back on mechanical routine and repetition to secure external efficiency of habit, motor skill without accompanying thought, marks a deliberate closing in of surroundings upon growth.

3. The Educational Bearings of the Conception of Development. We have had so far but little to say in this chapter about education. We have been occupied with the conditions and implications of growth. If our conclusions are justified, they carry with them, however, definite educational consequences. When it is said that education is development, everything depends upon how development is conceived. Our net conclusion is that life is development, and that developing, growing, is life. Translated into its educational equivalents, that means (i) that the educational process has no end beyond itself; it is its own end; and that (ii) the educational process is one of continual reorganizing, reconstructing, transforming.

1. Development when it is interpreted in comparative terms, that is, with respect to the special traits of child and adult life, means the direction of power into special channels: the formation of habits involving executive skill, definiteness of interest, and specific objects of observation and thought. But the comparative view is not final. The child has specific powers; to ignore that fact is to stunt or distort the organs upon which his growth depends. The adult uses his powers to transform his environment, thereby occasioning new stimuli which redirect his powers and keep them developing. Ignoring this fact means arrested development, a passive accommodation. Normal child and normal adult alike, in other words, are engaged in growing. The difference between them is not the difference between growth and no growth, but between the modes of growth appropriate to different conditions. With respect to the development of powers devoted to coping with specific scientific and economic problems we may say the child should be growing in manhood. With respect to sympathetic curiosity, unbiased responsiveness, and openness of mind, we may say that the adult should be growing in childlikeness. One statement is as true as the other.

Three ideas which have been criticized, namely, the merely privative nature of immaturity, static adjustment to a fixed environment, and rigidity of habit, are all connected with a false idea of growth or development, -- that it is a movement toward a fixed goal. Growth is regarded as having an end, instead of being an end. The educational counterparts of the three fallacious ideas are first, failure to take account of the instinctive or native powers of the young; secondly, failure to develop initiative in coping with novel situations; thirdly, an undue emphasis upon drill and other devices which secure

automatic skill at the expense of personal perception. In all cases, the adult environment is accepted as a standard for the child. He is to be brought up to it.

Natural instincts are either disregarded or treated as nuisances -- as obnoxious traits to be suppressed, or at all events to be brought into conformity with external standards. Since conformity is the aim, what is distinctively individual in a young person is brushed aside, or regarded as a source of mischief or anarchy. Conformity is made equivalent to uniformity. Consequently, there are induced lack of interest in the novel, aversion to progress, and dread of the uncertain and the unknown. Since the end of growth is outside of and beyond the process of growing, external agents have to be resorted to to induce movement toward it. Whenever a method of education is stigmatized as mechanical, we may be sure that external pressure is brought to bear to reach an external end.

2. Since in reality there is nothing to which growth is relative save more growth, there is nothing to which education is subordinate save more education. It is a commonplace to say that education should not cease when one leaves school. The point of this commonplace is that the purpose of school education is to insure the continuance of education by organizing the powers that insure growth. The inclination to learn from life itself and to make the conditions of life such that all will learn in the process of living is the finest product of schooling.

When we abandon the attempt to define immaturity by means of fixed comparison with adult accomplishments, we are compelled to give up thinking of it as denoting lack of desired traits. Abandoning this notion, we are also forced to surrender our habit of thinking of instruction as a method of supplying this lack by pouring knowledge into a mental and moral hole which awaits filling. Since life means growth, a living creature lives as truly and positively at one stage as at another, with the same intrinsic fullness and the same absolute claims. Hence education means the enterprise of supplying the conditions which insure growth, or adequacy of life, irrespective of age. We first look with impatience upon immaturity, regarding it as something to be got over as rapidly as possible. Then the adult formed by such educative methods looks back with impatient regret upon childhood and youth as a scene of lost opportunities and wasted powers. This ironical situation will endure till it is recognized that living has its own intrinsic quality and that the business of education is with that quality.

Realization that life is growth protects us from that so-called idealizing of childhood which in effect is nothing but lazy indulgence. Life is not to be identified with every superficial act and interest. Even though it is not always easy to tell whether what appears to be mere surface fooling is a sign of some nascent as yet untrained power, we must remember that manifestations are not to be accepted as ends in themselves. They are signs of possible growth. They are to be turned into means of development, of carrying power forward, not indulged or cultivated for their own sake. Excessive attention to surface phenomena (even in the way of rebuke as well as of encouragement) may lead to their fixation and thus to arrested development. What impulses are moving toward, not what they have been, is the important thing for parent and teacher. The true principle of respect for immaturity cannot be better put than in the words of Emerson: "Respect the child. Be not too much his parent. Trespass not on his solitude. But I hear the outcry which replies to this suggestion: Would you verily throw up the reins of public and

private discipline; would you leave the young child to the mad career of his own passions and whimsies, and call this anarchy a respect for the child's nature? I answer, -- Respect the child, respect him to the end, but also respect yourself.... The two points in a boy's training are, to keep his nature and train off all but that; to keep his nature, but stop off his uproar, fooling, and horseplay; keep his nature and arm it with knowledge in the very direction in which it points." And as Emerson goes on to show this reverence for childhood and youth instead of opening up an easy and easy-going path to the instructors, "involves at once, immense claims on the time, the thought, on the life of the teacher. It requires time, use, insight, event, all the great lessons and assistances of God; and only to think of using it implies character and profoundness."

Summary. Power to grow depends upon need for others and plasticity. Both of these conditions are at their height in childhood and youth. Plasticity or the power to learn from experience means the formation of habits. Habits give control over the environment, power to utilize it for human purposes. Habits take the form both of habituation, or a general and persistent balance of organic activities with the surroundings, and of active capacities to readjust activity to meet new conditions. The former furnishes the background of growth; the latter constitute growing. Active habits involve thought, invention, and initiative in applying capacities to new aims. They are opposed to routine which marks an arrest of growth. Since growth is the characteristic of life, education is all one with growing; it has no end beyond itself. The criterion of the value of school education is the extent in which it creates a desire for continued growth and supplies means for making the desire effective in fact.

1. Intimations of its significance are found in a number of writers, but John Fiske, in his *Excursions of an Evolutionist*, is accredited with its first systematic exposition.

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2. This conception is, of course, a logical correlate of the conceptions of the external relation of stimulus and response, considered in the last chapter, and of the negative conceptions of immaturity and plasticity noted in this chapter.

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Chapter Five: Preparation, Unfolding, and Formal Discipline

1. **Education as Preparation.** We have laid it down that the educative process is a continuous process of growth, having as its aim at every stage an added capacity of growth. This conception contrasts sharply with other ideas which have influenced practice. By making the contrast explicit, the meaning of the conception will be brought more clearly to light. The first contrast is with the idea that education is a process of preparation or getting ready. What is to be prepared for is, of course, the responsibilities and privileges of adult life. Children are not regarded as social members in full and regular standing. They are looked upon as candidates; they are placed on the waiting list. The conception is only carried a little farther when the life of adults is considered as not having meaning on its own account, but as a preparatory probation for "another life." The idea is but another form of the notion of the negative and privative character of growth already criticized; hence we shall not repeat the criticisms, but pass on to the evil consequences which flow from putting education on this basis.