CHAPTER 5
EXPERIENCE AND EDUCATION
Dewey's theory of education is the dynamic side of his philosophic thought, for whatever educational principles, practices or rules he advocates, follow directly from his epistemology, theory of meaning, axiology and theory of art etc. With the result that certain ambiguities and gaps in his systematic thought emerge rather with clarity as he develops implications and consequences from his philosophy for educational practice. His theory of education, in fact, did provide for Dewey and provides for his readers a number of important suggestions for the removal of ambiguities and means to fill gaps within his systematic thought. In addition to its function as a corrective measure, within Dewey's systematic thinking, his theory of education sounds a note of warning against the contemporary trend of mechanization and automation of the process of education through teaching machines. From Dewey's very comprehensive insight into the nature of man in relation to the physical world and other men, it is concluded that although educational methodology needs to be made systematic yet exact and narrow determinations of either aims of education or methods of education are neither advisable nor possible.
The idea of automation of education through teaching machines or self-learning through programmed text reflects the influence of contemporary scientific technology on education. Programmed learning is essentially a designing of a well-graded learning units, analyzed and arranged both according to the logical considerations about the subject-matter to be learned and psychological considerations of the learner's abilities. The program is prepared through joint co-operation of a number of experts like the psychologist, subject-matter expert and the programmer etc. Once the program is prepared and tested it is capable of being administered mechanically for the attainment of educational objective for which the particular program is designed.

B.F. Skinner, a pioneer of the teaching machine movement, says, "To automate education with mechanical teacher is like automating banking with mechanical tellers and book-keepers. What is needed in both cases is an analysis of the function to be served, followed by the design of appropriate equipment."¹

The advocates of mechanization of education reject, like Dewey, a Platonic conception of educational aim and concentrate on the behavioral analysis of learning processes. The decisions about the educational objectives in their scheme of education are not made in terms of abstract values but in terms of specification of some terminal behavior i.e the behavior to be achieved as the outcome of program administration. The program itself constitutes the arranging of an environment which expedites such terminal behavior. But unlike Dewey, Skinner or others associated with the mechanization of education have a very narrow conception of learned or terminal behavior. Learning means to them either acquisition of some skill or possession of knowledge defined specifically in terms of their content. With Dewey, however, a consciousness of the dynamic character both of human mind and human knowledge is supreme. Human mind is not like a computer's brain, a deposit of specific meanings and skills. It represents an ever growing capacity for the attainment of knowledge and skills which are in turn a progressive matter. He, therefore, conceives education as a process, a growing process, within which the acquisition of skill and possession of knowledge are certainly marks of growth but more than that, these are supposed to become means
for a continued capacity for further growth. Dewey has very often been misunderstood for having advocated growth and its continuity as the most fundamental aim of education. His critics in this respect fail to appreciate, a deep realization on his part, about the unavailability of final answers to human problems, and his conviction that the only resource at man's disposal to cope with the evolving world is by means of his ever developing consciousness. Conscious cultivation of human mind rather than possession of knowledge or acquisition of particular skill becomes for Dewey an aim of education. He finds a significant difference between training the mind and educating it. Training aims at setting up of an appropriate environment to achieve an entirely mechanical mode of behavior which is possible even if a conscious participation of the mind in getting the desired result is excluded. In order to achieve a conscious participation of human mind the process of education aims not merely at the possession of information or acquisition of knowledge but at making these means for rendering its subject sensitive to conditions of growing knowledge and experience. Growth as an aim of education refers, therefore, to this enhancement of man's capacity for insight into the changing existential circumstances, so that in the light of this insight
he can for ever reconstruct or revise traditional beliefs to suit his demands.

Robert J. Schaefer's objection against mechanical or even too strictly a planned teaching raises an issue which can be fully appreciated in the context of Dewey's thinking. Schaefer writes, "Teaching young people to give back desired response to particular intellectual questions — which is wholly within our knowledge and power — is only to provide the crudest introduction to the life of mind." Human mind more significantly denotes the ways in which it consciously and expressly deals with the variety of problems — life actually presents — than a mere store house of information.

Due to his insight into the fast multiplying content of knowledge and the absence of final settlements of human problems, Dewey in his book How We Think recommends that education primarily should aim at the development of reflective intelligence rather than possession of information and acquisition of skills. But he fails to provide an unambiguous notion of human

reflective intelligence. On the one hand, under the hypnotic influence of scientific advancement, he identifies human reflective intelligence with his capacity to make use of scientific methodology to solve totality of human problems and puts forth a very narrow definition of authentic empirical knowledge i.e. as scientific knowledge. On the other hand, he relaxes his conception of reflective thinking to include various methodologies like moral deliberation, techniques of artistic expression and the method of metaphysics etc. His broader conception of authentic empirical knowledge includes not only values, art and metaphysics but totality of methodologically developed and socially communicable meanings. The nature of authenticity, of course, depends entirely upon, and, therefore, could be understood in terms of the methodological techniques. His narrow and wider conceptions of reflective thinking and knowledge respectively leaves Dewey vacillating from an equally narrow conception of education i.e. as a process of learning to inquire by using the method of science, to the broadest possible definition of education as a process of reconstruction and reorganization of experience which adds to the meaning of experience and which increases man's ability to direct the course of
subsequent experience. Again ambiguity in Dewey’s conception of education may be said to reflect the ambiguity in his interpretation of man’s symbolic activity in general. On the one hand he suggests that genuine formulation of human experience consists only of scientific language, on the other social communicability is the decisive factor for the acceptability of language signs as valid signs. In order to arrive at a definition of education more coherent within his systematic thought it is required that his definitions of education, i.e. education as liberation of scientific intelligence and education as socialization of human mind are discussed in greater details.

In his book *The Sources of Science of Education*, Dewey raises a very definite question. He asks if there is a science of education, but finds that he cannot decisively maintain that it is a science. To begin with he only draws a distinction between the sources of educational science and the scientific content. He compares education with engineering. The progress of education, he maintains, is intimately linked with the progress in human sciences like biology, psychology and sociology etc., just as the progress of engineering is linked with the advance in physical sciences. Dewey is of the opinion that primarily it is only physical
and human sciences that denote scientific content; engineering and education are sciences only because these draw their content from the basic sciences. But he finds that the status of education even as dependent science is obscure because human sciences are as yet in an extremely backward state.

In this respect Dewey's position may profitably be compared to that of Joachim F. Wahlwill who condemns trusting the development of human minds to machines precisely on the ground that mechanical teaching presupposes learning theories which are not even up-to-date. Wahlwill maintains that learning theories on which educational technology is so far based, are by and large the outcome of Skinner's or Thorndike's experiments in animal learning. Referring to the recent interest of the psychologists in specifically human learning he says, "... it would be regrettable if the publicity and fanfare accompanying it (teaching machine movement) and aura of novelty and modernity surrounding it diverted attention from other less glamorous but, in the long run, probably more significant developments in psychology that are of more direct relevance to education. For as psychology is shifting ... towards an increasing interest in the acquisition of concepts, of meanings and of problem solving behavior in human
In these words of Wohlwill are not only implicit important differences between animal and human learning but a very significant suggestion that the techniques of education which aim at inculcation of specifically human behaviors like generalizing by means of language or solving problems by some suitable and methodic means might defy mechanical reduction. It is this very suggestion which Dewey's scientific conception of education presupposes as false. He, in fact, entertains the possibility of science of education in spite of his thorough awareness of the differences between human and animal learning, for he thought that there is fundamentally a uniform method, i.e. scientific method with which to deal with the physical, psycho-physical, ethical and social phenomena. But his shift from scientific to social conception of education displays a realization on his part of the limitations of scientific method.

Before coming to the precise nature and reasons for the shift in Dewey's educational thinking it is indispensable to note that his behavioral theory of

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meaning does not admit of the contemporary analytical separation of education as practical activity from education as a theoretical discipline composed of rules, directives and principles. According to Dewey educational theory means nothing except the existential plan for conducting education. Rules, directives and principles of education simply register what is to be done and how it is to be done in concrete situations. Philosophy of education is not a meta-theory for no distinction between theory and metatheory, in terms of an entire freedom of the latter from existential considerations, exists.

It is creditable for Dewey that he does not simply advocate the negation of the gap between theory and practice theoretically, but by actually putting his own theory into practice. As a practitioner of education he finds that his scientific conception of education fails to work. He writes, "No conclusion of scientific research can be converted into an immediate rule of educational art. For there is no educational practice whatever which is not highly complex; that is to say, which does not contain many other conditions and factors than are included in the scientific findings." It is only as a practitioner of education that Dewey arrives

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at a distinction between a scientific generalization and a rule of practice, a distinction which his theory of value fails completely, to make.

The distinctions between information and wisdom or between knowledge and intelligence grew obvious to Dewey within actual educational context. While concerned to develop the habit of reflective thinking in the young children he finds that the possession of scientific information or even an acquaintance with scientific method does not make them scientific thinkers.

Jerome S. Bruner refers to a similar idea while maintaining a gap between learning and thinking. He, as a critic of teaching machine movement, disapproves of mechanical teaching on the grounds that it fails to overcome the gap between learning and thinking. Bruner is of the opinion that it matters a little what one has learned, for major significance of what one has learned, lies in what one can do with it. Concerned with the problem of achieving a wide application of learned material he finds that it could be achieved only if the required leap of the barrier from learning to thinking is assured. Bruner speaks of his personal research experience, "I have been engaged, these last few years, in research on what makes it possible for organism... to take advantage of past learning in
attempting to deal with and master new problems before them now, ... In pursuit of it, my colleagues and I have found ourselves observing children in school rooms, watching them learning. It has been a revealing experience. We have come to recognise in this work that one of the principal objectives of learning is to save us from subsequent learning. This seems a paradox, but it is not. Another way of putting the matter is to say that when we learn something, the objective is to learn it in such a way that we get a maximum of travel out of what we have learned.\(^5\) Bruner seems to suggest that the gap between learning and thinking is overcome by recourse to some better method of imparting information but what constitutes the nature of such a method is not worked out.

As an educationist Dewey feels concerned with this gap between information and thinking rather seriously. His book *How We Think* registers his efforts to perfect and formulate the techniques of reflective thinking especially with respect to his experience as an educator. Here he accepts his failure to arrive at a set of exercises in correct thinking, the repeated

\(^5\)Jerome S. Bruner, "Learning and Thinking", in *Problems and Issues in Contemporary Education*, Compiled by Harward Education Review, p. 70.
performance of which, may cause one to be a good thinker. He finds that the techniques of reflective thinking could not be separated from its existential context and that there is no training of mental powers like observation, reasoning and imagination in the abstract apart from the actual existential context in which the individual makes use of these abilities. Since reflective thinking, according to Dewey, does not merely have content but involves content it could be stimulated only in directly experienced situations. Things primarily are meaningful because these are used in shared or joint action; the use of language to convey or acquire meanings is only an extension and refinement of this very principle. Both the use of physical environment and the use of language symbols are intermediary means of social interaction which results in widening and deepening of conscious life or development of human mind. Language, in fact, possesses this efficiency, i.e., as an intermediary means of social interaction only upon the background of coarser and more tangible use of the environment for this purpose. Dewey, therefore, strongly recommends the need for the first few years of education of the young children to be aimed at neither information nor skills but at enlarging their direct experience.
A natural language certainly enjoys a status of an unrivaled efficacy in formulating human experience and for facilitating human communication, for it acts as an effective means of joint reference to those aspects of human experience which men share with one another. Human beings are associated with each other in such a way that they cannot perform their own activities without taking into considerations the activities of others. Over and above this what ever one does or is capable of doing depends to a great extent upon the expectations or demands and approval or condemnation of others. Organization of human activity in the cooperative and shared social concerns becomes a sound basis not only for learning of language and meanings in its widest context; it also becomes a means of diverting natural social tendencies into useful channels. Cultural values like self-discipline, social efficiency, personal refinement, sense of responsibility, integrity and endurance etc. are the outcome of efficiently and appropriately organized community life. Dewey, as an educationist, happens to hold very emphatically that possession of knowledge and acquisition of skills are lacking in significance as long as these are unaccompanied by an emotional and social responsiveness. He writes, "We may secure motor activity and sensory
excitation by keeping one individual by himself, but we cannot thereby get him to understand the meaning which things have in the life of which he is a part. We may secure technical specialized ability in algebra, Latin, or botany, but not the kind of intelligence which directs ability to useful ends.\textsuperscript{6}

These words of Dewey bring out very clearly the distinction between information and social intelligence, a distinction which his theory of value failed completely to make. In the present context it may be profitably noted that although Dewey's scientific conception of values fails to tell that scientific ideas in order to grow into values needs to be characterized by emotional responsiveness which arises only in a practical context, yet his theory of value brings to light the significant role that knowledge plays in enriching and clarifying the practical problematic context of which values are the outcome. Unfortunately Dewey loses sight of this technical aspect of social virtues while dealing with their formation within educational context.

Dewey’s theory of education could have made a really indispensable contribution to educational practice.

if instead of vacillating between a scientific and a social conception of education it had combined the technical and the social aspect of value, i.e. of man's practical judgment and behavior.

As soon as Dewey realizes the fundamental importance of emotional and social attitudes in human life he shifts from a scientific to a social conception of education and ignores completely the link between values and knowledge. Education as a social process aims at the formation of character, i.e. appropriate attitudes towards nature and other men. Since the formation of desirable attitudes depends upon the nature of social interactions in which men are involved, Dewey finds a natural affinity between democratic form of government and education. He clarifies that Democracy is not a mere form of government; it is primarily a highly desirable mode of associated living based upon the principles of social sharing and social communication. Democratic patterns of association are more human than those which are autocratic and harsh. Democracy exercises social control by engaging its people in social occupations and social enterprises in which each individual is allowed an ample opportunity to make his specific contribution so that each feels responsible for the success of these enterprises. The absence of external authority encourages...
on the part of each member to make voluntary efforts which perhaps is the only way to true rationality and morality. Convinced of the fact that a widening and deepening of conscious life takes place only through social interactions, Dewey clearly maintains, "To form habits of social usefulness and serviceableness apart from any direct social need and motive, apart from any existing social situation, is, ... teaching the child to swim by going through motions outside of the water." Community life is, according to Dewey, the only appropriate medium for the formation of social virtues.

But in complex societies, like almost every modern society, most of the social tradition is inaccessible to individuals through direct means. Organized and formal means become indispensable especially in case of young children who are incapable of directly participating in the activities of adult life due to their immature mental, emotional and physical capacities. Educational institutions do perform a highly desirable function in providing young minds with simplified, purified and appropriately ordered environment so that the immature minds are gradually introduced to recognize

their fulfledged roles in the social life of their community. In spite of these very essential functions which educational institutions are expected to fulfil, Dewey holds that this transition from the indirect to formal education is invariably attended by conspicuous dangers. He, of course, is able to suggest a safeguard against these dangers in his conception of educational institutions as miniature communities. But this is a very poor safe-guard, because in the evolving world as tradition accumulates, its transmission through artificial but highly organized and formal means cannot be avoided. Moreover, it is Dewey's own contention that specialized types of discourse register meanings created and conserved within an organized society whose members make conscious, deliberate and methodological efforts to acquire common modes of doing, thinking and feeling by means of language tool.

Dewey, although is fully justified in retaining a link between natural language, born out of the widest possible interactions, and methodologically developed and specialized types of discourse. But it is undesirable to overlook the fact that these specialized types of discourse reveal significantly distinctive human capacities for creative and reflective thinking which education must preserve. Dewey, of course, is not
unmindful of the importance of meanings contained in various types of discourse in human life. He speaks of a cultured person as "what he gets and gives as a human being with desires, emotions and ideas is not external possession, but a widening and deepening of conscious life — a more intense disciplined and expanding realization of meaning."8

Joseph Ratner finds, as referred to in the introduction, that various types of discourse represent the logics of the specific and distinctive modes of human experience. Various interactions of man with his environments do tend to form themselves into recurrent kinds. Within Dewey's own systematic thinking, it can be maintained that formulation of the conditions of these various but recurrent kinds of experience would represent the logics or theories of these various kinds of experience. If, of course, Dewey had appreciated clearly that scientific knowing, moral choosing and artistic creations etc. represent some of the significant and different kinds of interaction of man with his environments he would have tried to explore not only scientific methodology but various methodologies. Certainly without an explicit reference to the

socio-cultural distinctions, differentiations and
discriminations within experience, it is neither rich
nor significant.

Since education denotes a conscious and deliberate
effort not only for the transmission of cultural
tradition but aims also at its enhancement, it becomes
indispensable for the theorists of education to analyze
and specify the nature of meaning and the rationale
these various modes of experience or of their
formulations in the form of specialized types of discourse.
Dewey's conception of education — of, by and for
experience — acquires a growing significance if
various modes are granted their due place within
education as experience.