

## THE PERIL OF EDUCATION THROUGH EXPERIENCE

BY

GEORGE A. BROWN  
Bloomington, Illinois

### INTRODUCTION

The title of my paper turns out to be entirely negative in its meaning for this ten minute discussion. In that time I cannot do justice to the perilous experience of expert knowledge. If you will note that the common root syllable *peri* in these words is derived from *peril*, you will see that the given title is tautological. I hope you will accept the following paper as at least something different from an education through experience<sup>1</sup>.

My thesis is that the mental life of mankind is a capacity of nature to do the work required to test knowledge, to give skill to talent, and to secure intelligently directed social conduct. This means that civilization is to be studied as a phenomenon of the energy of nature working as common human nature to advance the fellowship of mankind, and that social fellowship, rather than economic needs, is the central control. Society, and not the individual, is the unit for the final outcome<sup>2</sup>.

The four topics presented in this discussion are I—Method in Human Conduct; II—The Physical Basis of Mind; III—The Social Basis of Mind; and IV—Three Natural Steps in Education.

### METHOD IN HUMAN CONDUCT

Method is the large question before both psychology and education. The central issue, stated with violent contrast is:

Shall we leap before we think? or  
Shall we think before we leap?

<sup>1</sup> Logically, the peril of education through experience is the peril of limitation to immediate environmental opportunities and to ideas which depend upon the operation of habits.

How to study is a prime requisite of education, and this means how to integrate new ideas and experience with the total resources of life in a way to guide thought and talent and the insight of results towards true conduct.

<sup>2</sup> Mental life in this connection means a capacity to work for common understandings, appreciations, and plans, and to use nature's resources and man's social powers for a developing civilization.

Mankind acts both ways, or thinks he does, and the adage has been "Look before you leap." Hence my title. Evidently, in the early life of mankind, a new experience was considered as a leap in the dark. Must it always be so?

The empirical method, even as Dewey uses it, obtains knowledge only from experience. The contrasting method is the scientist's very fruitful objective method with its fundamental assumption that there is, not only an order of nature to be experienced but also that nature is an energy—a capacity to do work in a number of different ways which may be understood. For instance, there are nature's ways (1) in the gravity of mass; (2) in the chemism of atoms; (3) in the metabolism of organic cells; and (4) why not in the sociality of persons? The way nature works in each of these fields is determined when, in each case, present knowledge is so organized as to point the way to what may now be anticipated as hypothesis but needs to be discovered as true. The objective method gives the direction and anticipates that which is to be proved. It is possible to do this on the general hypothesis that nature is an energy. The tool used by science is the *crucial* experiment in which the various effects of the energy are so integrated as to establish the fact that nature works that way in that field of observable relations<sup>3</sup>.

How shall we express the idea of the energy of nature as it acts directly within mankind? The evidence of such an energy is our progressive human civilization itself. This energy takes form in human thought, judgments, appreciations, and in social conduct. It cannot take true form in what Dr. Dewey calls "A false psychology of an isolated self."

The physical scientists have been puzzled to apply their concept of the energy of nature to human life. Thomas H. Huxley gave the name "artificial personality" to human energy acting to maintain civilization, although he recognized that "conventions of honor are stronger than law, or morals, or religion, and shame drives the weakest to suicide." From his statement, it would seem that restraint of anti-social actions is the *artificial* in personality only because this restraint is needed by the psychologically isolated person. If nature in mankind has no capacity to work for sociality, then individual man tends to revert to the untrained being who struggles only for animal existence. Science is obstructed by the negative assumption that a *natural* personality is not active in promoting social relations true to human

<sup>3</sup> The beginning of modern physical science may be credited to the work of Galileo in his effort to define force in terms of mass and velocity. He established the use of the hypothesis and of the necessary crucial experiment.

welfare. Science cannot prove the negative. Why assert that civilization is less permanent than is organic life when men give their lives to maintain it?

Rightly defined, sociality would be a good name for the energy of nature as it works in all persons for the common good. Public opinion would then be considered as the *weight* of combined personal opinions due to the gravity of human energy acting throughout mankind. My point is that the *gravity of physical mass*; the *chemism of substances*; the *metabolism of organic life*; and the *sociality of human beings* are, each in its own way, *forms of action* for the energy of nature. Magic is not involved in the hypothesis of a natural energy at work within mankind in a way to produce the organizations of human society.

The fact that this energy works through the power of knowledge, the skill of talent, and the anticipation of good from directed conduct, and that it is difficult to express with the uniformity of a mathematical formula, does not leave us helpless to define it. Gravity varies directly as the mass and inversely as the square of the distance. The terms are quantity and distance.

If we say sociality, as an energy of nature, varies in its effects *directly* with the fullness of knowledge, perfection of skill, clearness of anticipation, and *inversely* with some power of the separation from the source of human energy by an isolated self, the terms are conditions and oppositions.

It is to such hypotheses that the objective method of science owes its unlimited fruitfulness<sup>4</sup>.

#### THE PHYSICAL BASIS OF MIND

What is the physical basis for such mental life? I can only offer the following quotations from C. Judson Herrick, the anatomical student of brain action. He says in his "Brains of Rats and Men" (page 350):

<sup>4</sup>The hypothesis of a sociality gives to every unit of conscious *thought—talent—insight of ends* a dynamic capacity to do work. It makes each condition of consciousness a unit of mental experience and at least a reserve center of activity for a fellowship union in civilized human life. What has been called the stream of awareness provided by the senses is not the source of human consciousness, though it may be the cause of the reaction of biological instincts.

The mental action of human consciousness is made possible by a special brain equipment of freely-acting associative neurons making up most of its cortex tissue. With this equipment, mental experience acts as an orienting power of direction, and patterns are formed by the associative neurons which retain the relations of *elements in the experience* and finally make connections for the interaction of *thought—talent—insight* between minds through acquired common symbols. The union of effort to carry out anticipated activities is thus made effective.

This hypothesis must rest, therefore, upon the demonstration of an adequate physical basis of mind and upon a psychological basis for the realization of the results of this capacity of nature. Nature's way in human life is not that of determinism. The limitations on free action are due to as yet inadequate preparation and to the not too many possibilities for human life in this world.

"The human type of plasticity of behavior is the very antithesis of habit, it is a new vital mode."

Again, and concerning the great mass of associative neurons, each with its pattern and symbol holding web of thought material, he says: (page 320)

"The income of energy and material which has accumulated throughout the entire preceding course of life, in short, the totality of our experience, can be drawn upon and made immediately available on demand. It is the whole personality that reacts to meet every situation."

One more quotation is perhaps enough to indicate the equipment of man's physical brain for action with his fellows to advance civilization. He says:

"My judgment and my forecast of my own proposed action are determining factors in shaping a decision or 'making up my mind' to a choice just as truly as are my hereditary or established habits or my (physical) condition of hunger."

The greatly increased amount of cortex brain tissue in man is free to hold energizing patterns and symbols needed in the conscious processes of mental action, and provides the physical needs for nature's way of working within mankind for progressive civilization.

#### THE SOCIAL BASIS OF MIND

The implications for psychology and education may be called startling. The first principle to recognize is that nature's energy is available for *conscious* use only when we know her way and try to work in accord with that way. Psychology and education make a false start in assuming that bodily contacts with things awaken consciousness and that social action starts on the same plane as animal action. Nature puts the human infant under conditions that just reverse this order. The infant's mind awakens to direct consciousness of person with person acting together. Thought requires a background of energizing mental patterns as a basis for anticipated kinds of response. Thought is at first secured only through conscious interchange of fellowship mental activities.

To-day psychology needs to discover the facts in *human* intercourse. It is a mixed field of investigation. Some of these facts draw men's mind together and secure loyalty to *proved knowledge*, *support of skilled talent*, and *devotion to organized* and intelligently directed social effort to secure more comfortable conditions of living for all, and fuller realization of the capacities of each in good, true, and beautiful living itself. These are the facts of the gravity of what we have named sociality. Other facts indicate the obstructions to this work by an isolated self. It is necessary to overcome their interference with the advance of civilization.

This field of psychology will be closely related to education, particularly to adult education. No person can reach a maturity much in advance of the maturing civilization, and education is an ever continuing process.

### THREE NATURAL STEPS IN EDUCATION

(a) Human intercourse is also the source of educational training for children and youth. Training is needed to meet the needs of growing powers of the mind. Each young *brain* grows and the cortex tissues increase in capacity to gather mental energy. The neuronics patterns and symbols by which the material for thought and judgment and appreciation and anticipation of ends is secured, come from fruitful associations. The first need here is to discover the facts of educational experience. The situation is different from adult education. This is due to the teacher's relation to growing brains and to the *need to establish*, as the background for thought, *the pattern materials* and neuronics energy for mental action. The indications are that these background experiences come in good part from play activities properly directed to include, at the age of the children, the kind and the amount of symbols and patterns possible in the associative neurons at that age. Play experiences are necessary as they do not complete the actual nervous reactions to biological needs, but are retained in the cortical tissues as pattern material with energy for action when the mind itself acts. Up to what age the play attitude is helpful has yet to be determined.

(b) Nature's way in youthful minds is to anticipate a social relationship to be reached at maturity. To reach the anticipated place in society, the youth seeks training and knowledge as a necessary preparation. This is a definite student attitude but the school may enlarge the aims to include broader culture.

(c) For mature minds, active in the actual affairs of the community, there are indications that nature's way is the *anticipation of improved service to society* and of *enlarged opportunities* for individuals *through associative relations* and better organization in all activities.

*Leadership is depended upon.* That leader is helpful whose foresight is good. He leaps in the true direction of human progress when he anticipates nature's way of sociality and prepares the means for the next step.