

## 21.

## AN EDUCATIONAL THEORY OF INQUIRY

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**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.**

—John Dewey, *MW*. 1.17

**T**his essay is grounded on the idea, widely diffused in Dewey's work, that any process of inquiry—from the simplest process to the more and more complex one—brings about growth and development for individuals, communities, and societies. This occurs as a more and more diffused mastery of methods, tools and forms of knowledge, which help us to develop a wider awareness and understanding of problems arising from human experience.

On the basis of this premise, it is very clear that, from a pedagogical point of view, inquiry develops into an *educational process* and can therefore be considered an *educational device* in itself. It thus becomes extremely significant to reflect on what *the principles for an educational theory of inquiry* could be according to a Deweyan perspective in today's educational scenarios, considering that education itself is the outcome of a continuous and reflective process of inquiry into educational situations and problems.

## 1. LOGIC, INQUIRY, AND EDUCATION: A PEDAGOGICAL PERSPECTIVE

Dewey's interest in *inquiry* is strictly connected with his interest in *thinking*, *logic*, and *education*. This interest makes more and more sense in connection with his pedagogical reflection, which started to be developed during the *Middle Works* period. In writings published between 1910 and 1911, including *How We Think*, the focus of Dewey's research was no longer on the physiological functions supporting thinking processes (in writings during the 1880s and 1890s such as "The Soul and Body" and *Psychology*), but rather on the *logical forms* of the ideas developed within inquiry operations.<sup>1</sup> These writings anticipate the analysis developed in the later *Essays on Experimental Logic* (1916), the second edition (1933) of *How We Think* (where we can see the structure of Dewey's *Logic*), and in *Logic: The Theory of Inquiry* (1938).<sup>2</sup>

In these first works, and in particular in *How We Think*, Dewey developed a "theory of thinking" which has deep educational implications. He wrote about an "educational theory of thinking" which focuses on the necessity for a discipline of cognitive processes according to a reflective pattern, and considers reflection to be a rigorous and consequential procedure, controlled by an inquiring and introspective rationality. This position is consistent with his ideas about education and its social implications developed in this period: *education* is intended as a *practice*, which can direct and facilitate activities leading to an organized and reflective use of inner forces and potentialities.

This conception (which would later be more precisely defined in *Democracy and Education*) is clearly visible in *The School and Society*, as Dewey writes:

The statement so frequently made that education means "drawing out" is excellent, if we mean simply to contrast it with the process of pouring in. But, after all, it is difficult to connect the idea of drawing out with the ordinary doings of the child of three, four, seven, or eight years of age. He is already running over, spilling over, with activities of all kinds.

He is not a purely latent being whom the adult has to approach with great caution and skill in order gradually to draw out some hidden germ of activity. The child is already intensely active, and the question of education is the question of taking hold of his activities, of giving them direction. Through direction, through organized use, they tend toward valuable results, instead of scattering or being left to merely impulsive expression.<sup>3</sup>

In this perspective, education can sustain growth, enhancing the “power of the mind,” which comes out of a continuous mental discipline, through activity and reflection:

In general, this growth is a natural process. But the proper recognition and use of it is perhaps the most serious problem in instruction upon the intellectual side. A person who has gained the power of reflective attention, the power to hold problems, questions, before the mind, is in so far, intellectually speaking, educated. He has mental discipline—power of the mind and for the mind. Without this the mind remains at the mercy of custom and external suggestions. Some of the difficulties may be barely indicated by referring to an error that almost dominates instruction of the usual type. Too often it is assumed that attention can be given directly to any subject-matter, if only the proper will or disposition be at hand, failure being regarded as a sign of unwillingness or indocility. Lessons in arithmetic, geography, and grammar are put before the child, and he is told to attend in order to learn. But excepting as there is some question, some doubt, present in the mind as a basis for this attention, reflective attention is impossible. If there is sufficient intrinsic interest in the material, there will be direct or spontaneous attention, which is excellent so far as it goes, but which merely of itself does not give power of thought or internal mental control. . . .

True, reflective attention, on the other hand, always involves judging, reasoning, deliberation; it means that the child has a question of his own, and is actively engaged in seeking and selecting relevant material with which to answer it, considering the bearings and relations of this material—the kind of solution it calls for. The problem is one’s own; hence also the impetus, the stimulus to attention, is one’s own; hence also the training secured is one’s own—it is discipline, or gain in power of control; that is, a habit of considering problems.<sup>4</sup>

The discipline of the mind is first of all a discipline of thinking, intended as a logical process which develops through different stages. For this reason it was very important, for Dewey, to understand *how thinking works* in order to see how it can be promoted and developed in educational contexts.

This issue then constituted the focus of a long process of clarification and exploration, beginning in the *Middle Works* and culminating in the *Later Works* with *Logic: The Theory of Inquiry*.<sup>5</sup> In the 1900 essay “Some Stages of Logical Thought”<sup>6</sup> Dewey anticipated the main issues which would then be developed both in *How We Think* and in *Logic: The Theory of Inquiry*.<sup>7</sup>

It is interesting to see that, in order to explain the development of the stages of logical thought, Dewey refers to the evolution of the *process of inquiry*, continuously arising from human activities and practices:

It is within this evolution that we have to find our stages of thinking. The initial stage is where the doubt is hardly endured but not entertained; it is no welcome guest but an intruder, to be got rid of as speedily as possible. Development of alternative and competitive suggestions, the forming of suppositions (of ideas), goes but a little way. The mind seizes upon the nearest or most convenient instrument of dismissing doubt and re-attaining security. At the other end is the definitive and conscious search for problems, and the development of elaborate and systematized methods of investigation—the industry and technique of science.<sup>8</sup>

The investigation in the logical structure of thinking continues in “Studies in Logical Theory” (1903). Dewey’s studies in this period anticipate some themes later treated in *Logic*, in which the theory of logic is intended as a “theory of inquiry.”<sup>9</sup>

In “Studies in Logical Theory” Dewey is already starting to conceive of the “logical theory” as a “theory of inquiry” as he clearly states: “The antecedents of thought are our universe of life and love; of appreciation and struggle.”<sup>10</sup> Sidney Hook explains that for Dewey, “thinking takes its point of departure from an experience of felt difficulty in a situation ‘whose parts are actively at war with each other—so much so that they threaten to disrupt the situation, which accordingly for its own maintenance requires deliberate redefinition and relation of its tensional parts. This redefining and re-relating is the constructive process termed thinking.”<sup>11</sup> In this formulation we can envisage a complex and strict connection between *logic* and *inquiry*, since the process of inquiry leads to an “existential reconstruction” of the situation and results in judgments, and these are not merely an outcome of inquiry, but also serve to direct future actions.<sup>12</sup>

In the Preface to *Logic: The Theory of Inquiry* Dewey identifies “reflective thinking” with “objective inquiry.” If thinking is to be considered *a logical and methodological device*, whose task is to guide and sustain human explorations of reality, to accompany the growth of human knowledge, to head towards new discoveries and new goals, it is not possible to treat it as an abstract and decontextualized function, independent from people, environments, situations, individual and social experiences.

Logic as a “theory of inquiry” always implies *the presence of an individual or*

*of many individuals* involved in a process of inquiry and *a context*, intended as a field of indeterminate and problematic experiences, which need to be explored and investigated. On this basis, logical forms are the by-products of thinking during the inquiry process and are therefore contextually determined and operationally directed. The objects of *Logic* conceived as a *Theory of Inquiry* are, thus, the inquiry processes produced in the exercise of reflective thinking (intended as the exploratory function of individual and collective life), which endlessly develop in all the fields of human experience, from commonsense experiences to scientifically controlled ones. Dewey's *theory of inquiry* is conceived as a scientific analysis of the inquiry procedures used within a determinate sociocultural context and in a particular historical moment, acknowledged and validated within a community and consolidated in a formalized structure.

This position would give to Logic—as a discipline—a historical and cultural status and situate it on an empirical rather than theoretical level. In these terms it can be read as the theoretical formulation of a reflection regarding *logos*, considered as a device to explore and understand human experience through logical procedures, which may be more or less complex. Moreover, the *Theory of Inquiry* can be understood as a response to the necessity to discover a *unified method* for commonsense experience and for science, on the basis of the acknowledgment of the principle of continuity of human experiences from the simplest to the more complex ones.<sup>12</sup>

Continuity is involved within the process of inquiry itself, as far as it is a developmental reality, evolving from simple forms, inferential “habits” which we are not always aware of, to more and more complex and sophisticated structures in a continuous process, deeply imbedded into our living experience.

## 2. THE EXPERIENTIAL AND EXISTENTIAL NATURE OF INQUIRY

In the description of the process of inquiry given by Dewey in *Logic: The Theory of Inquiry* the matrix of any kind of inquiry is both *experiential* and *existential*. Dewey's *Logic* is grounded on phenomenological and empirical assumptions: the condition of possibility for inquiry is the presence of indefinite and indeterminate situations, which individuals have to deal with, and they can do so by using a series of tools and devices, selected from individual and collective repertoires.

Within this framework, it is clear that the methods of inquiry can be applied only to *real problems* which stem from a situation, acknowledged as “problematic,” when we find in it not only a state of confusion, but a state of doubt and perplexity. Inquiry always responds, therefore, to an existential necessity: to clarify indeterminate situations, reaching some clear statements which can guide us in our future experiences. “If inquiry begins in doubt, it terminates in the institution of conditions which remove need for doubt. The latter state of affairs may be designated by the words belief and knowledge.”<sup>13</sup>

This point is further clarified when Dewey specifies how inquiry is deeply imbedded into the course of our lives as a pattern that governs its development:

The structure and course of life-behavior has a definite pattern, spatial and temporal. This pattern definitely foreshadows the general pattern of inquiry. For inquiry grows out of an earlier state of settled adjustment, which, because of disturbance, is indeterminate or problematic (corresponding to the first phase of tensional activity), and then passes into inquiry proper, (corresponding to the searching and exploring activities of an organism); when the search is successful, belief or assertion is the counterpart, upon this level, of reintegration upon the organic level. There is no inquiry that does not involve the making of some change in environing conditions.<sup>14</sup>

Inquiry, as a process that is serially connected is therefore deeply involved in human life because “the basic importance of the serial relation in logic is rooted in the conditions of life itself.”<sup>15</sup> Therefore “inquiry is a development out of organic-environmental integration and interaction”<sup>16</sup> which sheds a clear light on the empirical and experimental nature of the inquiry process in the sense pointed out by Dewey, who clarifies that

the points that have been made may be gathered together by consideration of the current meaning of “experience,” especially in connection with the intensified ambiguity, due to historical changes, that is attached to “empirical.” [Logic is] experiential in the way any natural science is experiential, that is, as distinct from the merely speculative and from the a priori and intuitional.<sup>17</sup>

Later on, Dewey focuses on the situational conditions for the emergence of inquiry processes with these words:

The indeterminate situation comes into existence from existential causes, just as does, say, the organic imbalance of hunger. There is nothing intellectual or cognitive in the existence of such situations, although they are the necessary condition of cognitive operations or inquiry. In themselves they are precognitive. The first result of evocation of inquiry is that the situation is taken, adjudged, to be problematic. To see that a situation requires inquiry is the initial step in inquiry.<sup>18</sup>

According to this framework, in order to understand the development of the structure of human logic, Dewey's investigation requires a *biological-anthropological method* and presupposes a *functional model* for human reasoning processes, focusing on actions, beliefs, intentions, needs, and wants. This is very clear as Dewey specifies:

The existence of inquiries is not a matter of doubt. They enter into every area of life and into every aspect of every area. In everyday living, men examine; they turn things over intellectually; they infer and judge as "naturally" as they reap and sow, produce and exchange commodities. As a mode of conduct, inquiry is as accessible to objective study as are these other modes of behavior. Because of the intimate and decisive way in which inquiry and its conclusions enter into the management of all affairs of life, no study of the latter is adequate save as it is noted how they are affected by the methods and instruments of inquiry that currently obtains: Inquiry is the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole.<sup>19</sup>

For Dewey the connections felt in direct experience (existence) are what he defines as "existential involvements"; when these connections are further formulated into relations, they become "significances." So, as we come to envisage and to establish relations within our fields of experience,<sup>20</sup> when we come to use symbols, when we begin to construct meanings, we can experience the progressive *entrance of cognition in the process of inquiry* and we attain new relationships with our world.<sup>21</sup> Therefore, the outcome of the development of structures of logic on the basis of experience and learning is a generalizable way of thinking and conducting human inquiries, thus leading to a generalizable way of acting.<sup>22</sup>

Dewey clearly points this out in *How We Think* where, recalling "Some Stages of Logical Thought," he states:

Thoughts that result in belief have an importance attached to them which leads to reflective thought, to conscious inquiry into the nature, conditions, and bearings of the belief. To think of whales and camels in the clouds is to entertain ourselves with fancies, terminable at our pleasure, which do not lead to any belief in particular. But to think of the world as flat is to ascribe a quality to a real thing as its real property. This conclusion denotes a connection among things and hence is not, like imaginative thought, plastic to our mood. Belief in the world's flatness commits him who holds it to thinking in certain specific ways of other objects, such as the heavenly bodies, antipodes, the possibility of navigation. It prescribes to him actions in accordance with his conception of these objects.<sup>23</sup>

If structures of logic are constructed within a field of experience and emerge and develop through inquiry processes, which are produced by the problematic situations we encounter in everyday life, this implies that *every experiential field is potentially generative of new logical forms, new behavioural patterns, and new meanings*. There is, as Dewey points out, a *continuity in our cognitive experience*<sup>24</sup> and this continuity is fundamental in the construction of specific situations which generate new patterns of inquiry and new logical forms for the development of “reflective thinking.” The process of the development of reflective thinking as an effective inquiry tool for human experience is, therefore, a *continuous process*, which goes through several existential and formative dimensions and is deeply imbedded in specific life situations, which we acknowledge as challenging and problematic.

For this reason, all experiences, even commonsense ones, can generate cognitive growth if within them reflective thinking is used and supported in a rigorous way. Therefore, in order to have a strong educational potential, these experiences should support the acquisition and development of conceptual tools and of inquiry methodologies, which can be helpful in the reconstruction of individual and collective experiences, giving them new sense and meanings.

### 3. INQUIRY AS A METHOD FOR LEARNING: EDUCATIONAL IMPLICATIONS

Dewey's focus on the empirical and existential matrix of logical and inquiry processes, from his first writings on logic to the masterpiece *Logic: The Theory of*



*Inquiry*, is the precondition to acknowledging logic and inquiry as *devices for learning and the construction of knowledge* and so to envisage their educational potential.<sup>25</sup> We should recall here that Dewey's educational perspective developed during the Chicago years (when he started and carried forward the challenging experiment of the laboratory school) and has, therefore, strong connections with this particular experience.

In *The School and Society* Dewey refers to the laboratory school as *the outcome of a process of inquiry* involving scholars, administrators, teachers, and students who came to focus on a specific set of *questions, or problems* and "attempted to find out by trying, by doing not alone by discussion and theorizing—whether these problems may be worked out, and how they may be worked out."<sup>26</sup>

It is very interesting to see that the inquiry process described by Dewey is not focused, however, only on problems of practical pedagogy, but also on broader and general educational issues as general frames of reference, which are to be clarified and explored in depth through the empirical and practical experience of schooling; at the same time, the practice of schooling itself will generate new educational issues, to be reflectively and thoroughly explored at a theoretical level, as Dewey started to do in his first educational writings and would later do extensively in works such as *Democracy and Education* and *Experience and Education*, elaborating a more defined *theory of education*.

Inquiry can be seen as the *matrix* of Dewey's pedagogical construction from several perspectives. We can see that *inquiry* is not only the method that Dewey and his colleagues used to explore educational issues and practices, but it was to become also *the method* used to support *learning and knowledge construction within educational contexts* according to the interests and the needs of the students, a *method* which must be developed by creating the conditions that enhance both the *attitude towards inquiry* and the *spirit of inquiry* at all levels.<sup>27</sup> Logic is neither abstract nor formal, but *experimental*, in the sense that logical patterns have meaning insofar as they can sustain the development of inquiry processes deeply imbedded in experiences which deal with concrete and real problems, leading to the production of new forms of knowledge.

Dewey's logical studies and his theory of inquiry are, therefore, strictly connected to an empirical and transactional epistemology.<sup>28</sup> As Dewey points out:

The assumption of an educational laboratory is rather that enough is known of the conditions and modes of growth to make intelligent inquiry possible; and that it is only by acting upon what is already known that more can be found

out. The chief point is such experimentation as will add to our reasonable convictions. The demand is to secure arrangements that will permit and encourage freedom of investigation; that will give some assurance that important facts will not be forced out of sight; conditions that will enable the educational practice indicated by the inquiry to be sincerely acted upon, without the distortion and suppression arising from undue dependence upon tradition and preconceived notions. It is in this sense that the school would be an experimental station in education.<sup>29</sup>

Dewey is aware that:

the spirit of inquiry can be got only through and with the attitude of inquiry. The pupil must learn what has meaning, what enlarges his horizon, instead of mere trivialities. He must become acquainted with truths, instead of things that were regarded as such fifty years ago, or that are taken as interesting by the misunderstanding of a partially educated teacher. It is difficult to see how these ends can be reached except as the most advanced part of the educational system is in complete interaction with the most rudimentary.<sup>30</sup>

These pedagogical considerations are operationalized in *The Child and the Curriculum*, where Dewey's ideas regarding the role played by logic in education and its relation with knowledge and subject matter is effectively stated:

... the child's reasoning powers, the faculty of abstraction and generalization, are not adequately developed. So the subject-matter is evacuated of its logical value, and, though it is what it is only from the logical standpoint, is presented as stuff only for "memory." This is the contradiction: the child gets the advantage neither of the adult logical formulation, nor of his own native competencies of apprehension and response. Hence the logic of the child is hampered and mortified, and we are almost fortunate if he does not get actual non-science, flat and commonplace residua of what was gaining scientific vitality a generation or two ago—degenerate reminiscence of what someone else once formulated on the basis of the experience that some further person had, once upon a time, experienced.<sup>31</sup>

Dewey's writings make a strong relation between subject matter and the processes of its construction; each subject matter and each content comes to have its meaning in individual and collective experience when it is understood as the

product of a process of inquiry and when it is explored considering its potentiality to generate new inquiry processes and new forms of knowledge. The development of school *curricula* must therefore be oriented in the direction of the organization of experiences of inquiry within specific subject matters and must be oriented *both* towards the development of competences regarding inquiry as well as towards the acquisition and use of different forms of knowledge.

We acknowledge, here, two important educational goals which cannot be separated: the cultural focus on a subject matter (conceived as the social acknowledgment of a process of inquiry) gives meaning and sense to the experiences of inquiry within educational contexts; at the same time, the mastery of the process of inquiry is regarded as the condition of an effective and significant approach to subject matter, in connection and in continuity with individual life experiences, all of which are potentially educational.

#### 4. INQUIRY AS A METHOD OF RECONSTRUCTION OF HUMAN EXPERIENCE: PEDAGOGICAL AND SOCIAL IMPLICATIONS

It is, at this point, very important to figure out what Dewey meant by *education* and *educational* and to see what the connections are between his *pedagogy* and his *theory of inquiry*.<sup>32</sup> The idea that education is a continuous process of “reconstruction” of human experiences based on a correct use of reflective thinking is clearly formulated in *Democracy and Education*, and further developed in *Logic: The Theory of Inquiry*, focusing on inquiry as both the method and the tool of this “reconstruction.”

As a matter of fact, the *theory of inquiry* integrates both the propositions on the basis of the general principle of the *continuity of experience*, which becomes educational insofar as it generates new interpretative and reconstructive processes; it is thanks to these processes that we can situate human experiences within a universe of meaning and discourse and build up connections with past and future experiences.

It is important to say, at this point, that these processes come into being only within *regulated inquiry situations* where we can find the conditions of possibility to “reconstruct” our experiences in a more significant way, discovering connections, implications, and relations which make them more and more clear,

understandable and meaningful. As soon as it becomes a matter of meaning making—insofar as it involves symbolic forms, insofar as organized forms of knowledge—inquiry is to be intended not only as an *organic process of accommodation*, but as *a cultural and social process of understanding*, which has its roots in a cultural context and is sustained by cultural and social frames, artefacts, tools.

From this perspective, inquiry comes out of social contexts and contributes to reconstructing them and to reorganizing them, insofar as a growing number of individuals and groups begin to explore the possibility to overcome and make sense of the problematic situations they live in, by using reflective tools and methodologies. Inquiry may become, therefore, a means to support and sustain social order, since it emerges from inside of society itself. Dewey explored this issue deeply in *The School and Society*, addressing two fundamental questions:

How can a society be disciplined, organized, ruled in such a manner that all its members can be protected, satisfied, and sustained, while actively and responsibly participating in its development?

How can a society develop and grow according to its intrinsic potential?

Social order is not a matter of general rules imposed on a society from the outside or from above. It is, instead, a matter of individual and collective awareness, reflectivity, and responsibility.

For these reasons, an effective social order can be achieved only *if and when* more and more individuals and groups become able to deal with social problems in a reasonable and reflective manner, using a disciplined method of inquiry into human experiences and relationships. The need for a social order (which is a *social need*) becomes an *educational need* if we focus on the *competences, the knowledge, and the tools* required to construct and maintain this order. This clarifies the connection in Dewey's thought between the conditions of possibility to build up inquiry competences on the basis of psychological/physiological maturational processes within educational contexts, and the achievement of a new social order based on the development of these competences and the dissemination of sound and rigorous inquiry practices in different social areas.<sup>33</sup>

It is, therefore, on the basis of the matrix of inquiry that individuals and social groups can acquire and develop competences useful in understanding human experience and in making sense of the problematic situations which compose the world of human life.

## 5. FOR AN EDUCATIONAL THEORY OF INQUIRY

*Logic: The Theory of Inquiry* may be, for many of its aspects, considered a definitive work, which Dewey felt the necessity to write in order to synthesize—in a complex argumentative framework—the two theoretical efforts which had characterized his entire speculation from the *Early Works* to the *Later Works*: a “theory of thinking” and a “theory of experience.”

The first three chapters of the first part of *Logic* are extremely explicit in grounding this position, which becomes clearer when Dewey states that, wherever he has used the term “inquiry,” he could as well have used the term “reflective thinking.” The “theory of inquiry” could be intended as a “theory of reflective thinking” insofar as thinking is explored in its development, in its organization, in its coming to have specific forms and procedural rules within different fields of human experience, in its possibility to be educated according to socially acknowledged criteria and values. Still, it is a “theory of inquiry,” as it focuses on the context, on the conditions, and on the process of the emergence and development of thinking, which are determinations and dimensions of inquiry.

The “theory of inquiry” was intended by Dewey to be—within a reflective pattern—an “inquiry into inquiry,” which would shed light both on the *making of thinking* as well as on *its frames of reference, its norms, and its rules, as well as on best conditions for its development within human experience*. As it sheds light both on the relationship between thinking and experience within human formation processes, as well as on the educational conditions for human thinking, Dewey’s *Logic* can be and should be read in a *pedagogical perspective*. The *theory of inquiry* can therefore be understood as an “educational” theory, grounded on three strong theoretical bases: (a) on an “educational theory of thinking”; (b) on an “educational theory of experience”; and (c) on a “theory of education” considered as a process of individual and social growth and development.

Since *inquiry* is explored both in its cognitive and logical structure as well as in its cultural and social implications, it can be seen (due to its origins, its conditions of possibility, and its structure) both as an *educational device* and as an *educational model*, thus supporting an *educational process* of growth and understanding, both at an individual and at a social level. If, in Dewey’s terms, an educational process is a process of continuous and constant reconstruction of human experience in different contexts, *inquiry*—as it is described in *Logic*—is both the *tool* and the *model* for this process.

The acquisition, mastery, and dissemination of the method of inquiry through educational practices—which support the acquisition and development of inquiry attitudes and competences—can therefore support the reconstruction of human experiences in a wide range of contexts (formal, nonformal, informal), reflectively orienting and sustaining human living. *Inquiry* can be seen as the driving force for the development of educational (and therefore social) systems, for several reasons:

1. Inquiry is the method of scientific research and thinking, it contributes to developing and spreading innovation within the educational and social system, thus contributing to social advancement and growth;
2. Inquiry is the ground of the epistemic structure of each subject matter intended as a scientific outcome, and can be seen as the educational method which will allow a fruitful approach to knowledge contents, as they are presented not as finite products but as outcomes of an ongoing inquiry process whose social utility can be acknowledged and appreciated on an experiential basis;<sup>34</sup>
3. Inquiry is a regulated thinking procedure that can be seen as a model for logical thought (of reflective thinking, conceived as “the best” way to think things out and to explore every kind of human problem, even moral ones) whose structures and rules need to be clarified and introduced in each social context through appropriate educational practices;
4. Inquiry is the force which sustains professional practices, making them less and less routine and more and more innovative and productive of new forms of knowledge and understanding, which is particularly relevant for educational practices at all levels.<sup>35</sup>

But how can we organize effective educational practices to make this possible within contemporary educational scenarios?

Again, we can refer to a Deweyan suggestion. According to Dewey, education cannot occur outside experience; it is *a particular form of human experience*; on this basis, education should not be focused only on the development of inquiry attitudes and competences, but should support the organization and development of *inquiry experiences*, which are the only contexts where these attitudes and competences can be developed and fostered. How can we then construct and support true experiences of inquiry, which can be considered good

educational models in a Deweyan perspective? We should first of all clarify what the constitutive characteristics of the *experience of inquiry* are, in Dewey's terms.

The experience of inquiry is always *an ongoing experience*: it stems from indetermination and uncertainty in real-life situations, it is governed by doubt, it is progressive and provisional, it is fallible, it requires constant verification and validation, and it produces outcomes which are constantly open to reconstruction. Inquiry is an experience of openness to multiple possibilities, of challenge and commitment, of responsible acknowledgment of our own failures, of reflective evaluation of our successes. Inquiry is contextually situated and is determined by the conditions of the contexts in which it is embedded, therefore involving aesthetic, cognitive, ethical, and practical dimensions.<sup>36</sup>

Insofar as inquiry is culturally and socially situated, it is also an experience of attentive listening, observation, interpretation, and understanding which helps us to discover new meanings and to construct new relationships in our experiences, building up new links and networks among concepts, ideas, symbols, etc. The experience of inquiry helps us to look at the multiple and different forms that the complex experience of human life can take, to understand its continuity and unity as well as its fragmentation, to make sense, within it, of the relationship parts/whole, to understand the relevance and significance of oppositions but also their definiteness and partiality, without being disoriented or stuck in a single perspective.

Inquiry helps us to overcome the limits of our single experience, to broaden our horizons, to master more and more perspectives, to become reflective and self-corrective. Inquiry provides us with the tool of reflective thinking, which it constantly improves and develops, helping us to master, attentively and responsibly, our life experiences.

What we can see, however, in today's educational scenarios is that many of the educational practices that are claimed to be "inquiry based" are not grounded on effective and real inquiry experiences. We know that a true inquiry experience should always start in an indeterminate situation, but very often the educational situations we encounter are predetermined and oriented, therefore not calling for inquiry processes emerging from genuine puzzlement and interest; the inquiry processes are thus not authentic ones, since the problems are already posed and defined and not constructed starting from the situation; moreover, there is rarely a choice between different repertoires of methods and tools, which are instead already offered and organized.

Moreover, these so-called inquiry experiences are learning-oriented experiences, which lead to learning a particular content or subject matter as a definitive outcome of scientific inquiry, simulating some so-called experiment but not introducing individuals to an autonomous mastery of a scientific inquiry method within a discipline; the subject matter is therefore not approached in a participatory and consummatory way, but according to a “spectator” approach, which keeps it far and distant from human life experience. Learning is thus not a real learning, since it does not produce a real appropriation and mastery of knowledge and competences, but only a passive acquisition of information and facts.

What can we do in order to transform all this? The situation here considered is, for some reason, not very different from the one depicted by Dewey in his essay *The Educational Situation*. There he pointed out that, in order to understand the “educational situation” it is necessary to understand the underlying social situation. He saw the “educational situation” as the product of a dualistic society which had been developing, “drawing fixed lines between classes, and dualistic intellectually, with its rigid separation between the things of matter and of mind—between the affairs of the world and of the spirit.”<sup>37</sup>

Surprisingly, 150 years after Dewey’s birth, these dualisms seem not to be overcome yet. The inability of our educational system to provide real experiences of inquiry (even when it pretends to do so) is strictly connected to the idea that knowledge and inquiry are a business for few people and that cannot be approached through direct experience by everybody. In these terms, the contemporary “educational situation” is very challenging, since it calls for political and social consideration and leads us to pose some powerful educational questions focusing on issues of control, power, and the social order.

What will happen if everybody really attains a reflective mastery of inquiry practices in her/his everyday life? What if the information, the news, the knowledge that we approach in educational, and in general, in any formative context were considered to be partial, fallible, and were constantly revised and reconstructed through inquiry processes? What if people started to use and master reflective processes in their daily life, in their workplace, in the communities they live in? What if these communities began to treat themselves and their problems using a reflective approach?

An in-depth exploration of these issues (which cannot be a matter of analysis here) would imply a general reflective reconstruction of educational policies, which we consider to be—in a Deweyan perspective—the only means



to reach a real and effective reconstruction of educational practices, leading towards a new social order, inspired to a true “social democracy.” In order to be effective, this exploration must be conducted *from the inside* of educational and social systems, involve all the inner agents and forces operating within them, and be conducted—through sound and rigorous processes of inquiry—starting from real problems.

This process would lead to the construction of *inquiring communities*, whose understandings might come to have a more and more relevant impact on educational policies and educational systems. Within this framework, we would have the development of situated processes of *educational inquiry*, which would lead to an effective educational transformation affecting educational theories, and at the same time policies and practices. In these terms the transformative potential of inquiry could be used as a *true force for social change*.

This perspective leads us to a broader awareness and understanding of the power that the mastery of a sound and rigorous method of inquiry can give to individuals and groups in today’s social and political scenarios, fulfilling Dewey’s expectation for a real reform in education and in society.

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