An Anthropocentric Approach of Dewey's Philosophy of Education

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Abstract

Dewey has been accused of failing to deal with the human side in his approach of metaphysics because of over-emphasis of the scientific inquiry. Accordingly, Dewey's philosophy, metaphysical naturalism, has been characterized as non-anthropocentric. However, Dewey's philosophy is, in effect, anthropocentric for he proposes that human beings regard themselves as the central focus of reality through an exclusively human perspective in terms of human's capacities and his experiential transaction with nature.

In this study, I try to refine Dewey's position in response to this charge in the following three perspectives. First, I argue that Dewey is able to construct his enterprise from scientific discoveries, while maintaining the importance of philosophical traditions. Secondly, I argue that Dewey maintains humanity enters into the ongoing processes of nature through understanding, utilizing, controlling, and redirecting scientific inquiry. Last, I argue that Dewey claims new science and technology promise ways to reshape education by offering new knowledge, both tools and contents, for further inquiry. Thus, when these three perspectives are clarified, Dewey's philosophy of anthropocentric approach is suggested in the practice of education.

Key words: scientific inquiry, anthropocentric,

Introduction

The philosophical ideas and educational theories of John Dewey has been influenced both philosophical and educational fields in the 20th century, and is continuing in the 21st century. However, Dewey has been accused of failing to deal with the human side in his approach of metaphysics because of over-emphasis of the scientific inquiry.

Hutchins (1953), a perennialist proclaiming the intellectual and spiritual character of man's place in the universe, points out that Dewey fails to acknowledge the perennial truths that are essential to the cultivation of intellectual development. For Hutchins, the universal aim of education is truth itself. Since the truth is unchanging and universal, a genuine education should also be unchanging and universal. Thus, the school's curriculum should emphasize the unchanging and universal themes of human life. Hutchins in his book, *The Conflict in Education in a Democratic Society*, believes that Dewey fails to realize this basic concept of truth. Thus, Hutchins asserts that Dewey's "pragmatism […] hold[s] that the only knowledge is scientific knowledge" (Hutchins, 1953, p. 53), leaving out the humanities entirely.

J. Martin Rochester (2002) in his book, *Class Warfare: Besieged Schools, Bewildered Parents, Betrayed Kinds, and the Attack on Excellence*, points to Dewey as the source of highly abuses in the educational system. Rochester argues that it has been "Dewey's progressivism had run its course and had collapsed under the weight of its accumulated failures" (Rochester, 2002, p. 177).

In *John Dewey and the Decline of American Education*, Henry Edmondson III (2006) begins with an account of challenging Dewey's fundamental principles on education establishment. Edmondson criticizes that Dewey has had a harmful effect on American democracy through his philosophical ideas by ignoring the importance of philosophical tradition.

Hutchins, Rochester, and Edmondson all misunderstand the core ideas that Dewey tries to express in his philosophical ideas and educational theory. In this study, first, I argue that Dewey is able to construct his enterprise from scientific discoveries, while maintaining the importance of philosophical traditions. Secondly, I argue that Dewey maintains humanity enters into the ongoing processes of nature through understanding, utilizing, controlling, and redirecting scientific inquiry. Last, I argue that Dewey claims new

science and technology promise ways to reshape education by offering new knowledge, both tools and contents, for further inquiry

The Reconstruction of Philosophy

In *Reconstruction of Philosophy*, Dewey criticizes the notion of traditional philosophy:

> [Traditional] philosophy has arrogated to itself the office of demonstrating the existence of a transcendent, absolute or inner reality and of revealing to man the nature and features of this higher reality. It has therefore claimed that it was in possession of a higher organ of knowledge than is employed by positive science and ordinary practical experience, and that it is marked by a superior dignity (Dewey, 1920, p. 92).

As Hutchins (1953) asserts, traditional philosophy, a given study of a higher reality, is considered a discipline providing guidance for other subjects and standing above the matters of daily life. However, Dewey does not accept the traditional definition of philosophy. He argues that "philosophy must take, with good grace, its own medicine" (Dewey, 1917, p. 38). In Dewey's mind, philosophy must subject its own methods, assumptions, and principles to rigorous analysis and criticism. Dewey contrasts traditional philosophy to modern philosophy in dealing with the current problems. He argues that, just as traditional philosophies arose out of the need to explain natural and social phenomena, modern philosophy must deal with social needs to reconcile culture with modern science. In Dewey's terms, "the task of future philosophy is to clarify man's ideas as to the social and moral strives of their own day" (Dewey, 1920, p. 94). Therefore, Dewey proposes that modern philosophers must abandon the puzzles of pursuing the absolute reality they have inherited from tradition, as Hutchins proposes, and turn their attention to problems encountered in society.[1] Dewey maintains that "philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of men" (Dewey, 1917, p. 46).

In the line of traditional philosophies, Dewey's reconstruction of philosophy performs the decisive social function of reconciling culture and science. However, unlike the traditional approach, which aims at separating traditional philosophy from science through dualism, Dewey's reconstruction of philosophy is directed at the integration of science and culture. For Dewey, the reconstruction of philosophy must strive to apply the methods of science to the moral and social problems in contemporary culture. To a certain degree, Dewey is very Darwinian. This Darwinian inclination explains why Dewey jumps from rejecting Hutchins' perennialism to social reconstruction, when he could have made other choices.

To Dewey, a reconstructed philosophy does not suggest standing above the natural sciences; rather, a reconstructed philosophy must begin with science. This task of a reconstructed philosophy is to apply the methods of scientific investigation to both natural and social problems "to become so far as is humanly possible, an instrument for dealing with these conflicts" (Dewey, 1920, p. 94). That is, a reconstructed philosophy is scientific.

In order to explain why reconstructed philosophy is scientific, Dewey draws a contrast between the world of ancient and modern sciences. First, the world of ancient science is a closed one. The ancient world was confined to a limited number of fixed forms of knowledge. In such a world, although development goes on, it concerns changes within particular members of classes in a society. Second, the ancient world is a fixed world where everything occurs on only within limits of rest and where the fixed and unmoving concepts are higher than the moving and changing ideas in quality and authority (Dewey, 1920, p. 110). The fixed and unmoving reality is the realm of traditional philosophy; in contrast, the world of moving and changing ideas is Dewey's reconstructed philosophy.

Dewey argues that the world of modern science is an open one. It is a world that stretches beyond assignable boundaries, opening into an infinite space and time beyond the imagination of the ancient thinkers. The world of modern science is also a changing world, where change rather than fixity is a measure of reality. Dewey argues that:

> The laws in which the modern man of science is interested are laws of motion, of generation and consequence. He speaks of law where the ancients spoke of kind and essence, because what he wants is a correlation of changes, an ability to detect one change occurring in correspondence with another. He does not try to define and delimit something remaining constant in change. He tries to describe a constant order of change. And while the word "constant" appears in both statements, the meaning of the word is not the same. In one case, we are dealing with something constant in existence, physical or metaphysical; in the other case, with something constant in function and operation. (Dewey, 1920, p. 114)

Dewey believes the modern world is ongoing and developing continuously. For Dewey, the basic characteristic of things in nature, the organism and the environment, is interaction. This is to say that things do not merely act; "they mutually act and react upon one another so as to maintain the whole in existence" (Dewey, 1902, p. 177) and in this interaction the onward movement of nature is carried out (Dewey, 1902, p. 177). In other words, both the organism and the environment interact, and at the same time both of them develop. This phenomenon is essential to living operations. Organic life goes on through interacting with other organisms and through interacting with the outside world. Because of this constant interaction, Dewey suggests, there is no clear division between subject and object, or act and material.

Dewey asserts that, in the course of the interaction between an organism and environment, both are changed. The amount and degree of change will depend on the complexity of its operations. However, it is not a mere molding of the organism to the environment, nor does the environment itself remain static in the process. Moreover, there is no such thing in the living creatures as mere conformity to any condition. In other words, both the organism and the environment interact, and develop at the same time.[2]

In a sense, the understanding of what interaction produces is key to understanding human experience. At the core of Dewey's whole approach of human fulfilment is his supposition that man is in a continuous process of interaction with nature since man is part of nature. Dewey argues that, "An experience is a product, one might almost say a by-product, of continuous and cumulative interaction of an organic self with the world" (Dewey, 1934, p. 225). Dewey believes that a human being's development consists in a rhythmic series of disorientations and re-integrations with the environment. When disorientations occur, he faces problems. When he solves problems, reintegration happens. Dewey optimistically maintains that each reintegration should mean an enrichment of the human being; as a result of this interaction, the human being develops and the environment changes.

How does this human being successfully integrate his experiences into the environment? In Dewey's educational ideas, science has an important place in this integration. Dewey claims that "science is here and a new integration must take account of it and include it" (Dewey, 1934, p. 343). Dewey argues that man's integration in civilization must take into consideration the role of science; it forms so much a part of man's life that it cannot be ignored.

Dewey uses the term "science" in both a generic and specific sense. First, science is a more generic term which includes logic, reflection, reflective inquiry, thought, intelligence, mind, reason, and knowledge. Second, science assumes the modern connotation of the natural sciences or social sciences, such as physics, chemistry, biology, sociology, psychology, anthropology, or science as it is applied and industry, i.e. technology. In other words, for Dewey, on the one hand, science stands for a general method of inquiry; on the other hand, it stands for particular instruments and techniques of experimentation and for a particular content of in the field of science.

Scientific Inquiry for Solving Problems

Dewey argues that an organism develops by interacting with the environment, in which both the organism and the environment are changed. The result of this interaction is a successful integration between the organism and the environment. However, Dewey believes that human beings, as organisms, take a more active part than the environment in the process. For human beings, the participation in the course of events

and affairs becomes intentional. A trained human being has the power to direct the process and thus to control the environment and predict the consequences. He knows how to use both method and tools. It is this power of applying method and using tools which differentiates man from the lower species.

In this context, "trained" means equipped with the model of problem-solving—the scientific method, in Dewey's term. Dewey's model of the problem-solving is based on the theory of inquiry. For Dewey, the purpose of the theory of inquiry is to reintegrate human experience into the environment. In other words, the theory of inquiry is human's way of regaining steps in the ongoing movements of things.

First, the starting point of inquiry is that a human being may have lost his touch with the environment. Because of some disturbance, he moves from a settled adjustment to an unsettled and disintegrated situation. The elements of an ongoing experience are in tension with one another, each contending for a proper place and relationship. When a human judgment is made that a situation is confused or disturbed, the situation becomes problematic. Second, it is through the problem-solving model that man achieves reintegration with the environment and has a consummatory experience (Dewey, 1938, p. 135). In the process, a modification of man and environment occurs. Thus, Dewey notes:

> [Reflective Inquiry] institutes new environing conditions that occasion new problems. What the organism learns during this process produces new powers that make new demands upon the environment. In short, as special problems are resolved, new ones tend to emerge. There is no such thing as a final settlement, because every settlement introduces the conditions of some degree of a new unsettling. In the stage of development marked by the emergence of science, deliberate institution of problems becomes an objective of inquiry (Dewey, 1938, p. 42).

As such, the world contains within itself almost limitless possibilities of development; things can combine and recombine in new ways, giving rise to new objects of experience which, in turn, become starting points for newer objects in an endless chain.

For Dewey, a human being equipped with the model of problem-solving, sets out to discover the hidden connecting links in nature, to combine objects in new ways, and thus to advance the ongoing development of nature.[3] In fact, Dewey would consider reflective inquiry a process of detecting a problem, gathering information, discovering its correlations, and providing possible solution.

Despite his account on the changing character of the world, Dewey does not consider the world to be chaotic.[4] Instead, there are regularities and uniformities, which nevertheless give the world a character of relative constancy. It is this rhythm of stability and instability that makes scientific inquiry possible. Similarly, Dewey does not consider human life chaotic, either. To him, human life is one of the components of the interaction through which man reaches fulfilment. In other words, human beings act so as to restore their integration in the surrounding conditions. As we have seen, human beings are unique in that they can direct and control the course of events. Dewey believes that reflective inquiry assumes that human beings are constantly in an intermediate and reconstructive position. Thus, when a human being finds himself in a situation which is disruptive of his integration with his surroundings, i.e. problematic, he investigates the details of the problem. Form this investigation, he decides on a course of action necessary to solve the problem. Consequently, Dewey calls this idea the "reflective inquiry of action," a guide of action. It is only a tentative proposal, "a forecast, an anticipation, or a prediction" (Dewey, 1933, p. 208).

The validity and effectiveness of this idea in accomplishing its purpose must depend on test through action. That is, the idea is put into practice in order to see if it can accomplish its purpose—the restoration of unity between man and his environment. Dewey notes:

> Overt action is demanded if the worth or validity of the reflective considerations is to be determined. Otherwise, we have, at most, only a hypothesis that the conditions of the difficulty are such and such, and that they way to go at them so as to get over or through them is thus and so. This way must be tried in action; it must be applied, physically, in the situation. By finding out what then happens, we test our intellectual findings—our logical terms or projected metes

and bounds. If the required reorganization is effected, they are confirmed, and reflection on that topic ceases; if not, there is frustration, and inquiry continues (Dewey, 1917, p. 327).

Dewey believes that this action is not blind, and should be trained with the problem-solving model—the scientific method.

This attitude gives a whole new orientation to intelligent and reflective inquiry (Dewey, 1925, p. 121). These elements are now considered in terms of thinking, acting, doing, and creating; in brief, in terms of process. Reflective inquiry is then considered a "directed activity, doing something which varies the conditions under which objects are observed and directly had, and by instituting new arrangements among them" (Dewey, 1929, p. 99).

New knowledge, both tools and contents, for further inquiry

In Dewey's philosophy of education, education is always in a process of development by which learners will reconstruct their experience in nature (Dewey, 1910, p. 385). Therefore, in any educational system, educators should be ready to continually modify both the content of the subject matter and the learning methods in order to tackle new knowledge in new environments. Thus, the nature of education is not the transmission of certain perennial concepts of goodness and truth, but a continual reconstruction of experience (Dewey, 1903, p. 324). Therefore, the role of teachers is to manage a learning environment so that students can encounter, approach, and solve their problems through the method of problem-solving.

From this perspective, therefore, education should allow students to use their own experience to interpret the environment around them. By so doing, the students then have a richer reconstruction of their experience and have expanded their knowledge; that is to say, they learned. This growth, through the reconstruction of experience, becomes the goal of education itself.

Dewey believes that human beings use many problem-solving techniques when encountering problems in new environments. However, the most effective problem-solving technique, for Dewey, is the scientific method. Dewey's model of "problem-solving" is, therefore, the scientific method.

In education, Dewey develops the scientific method into his theory of learning. Dewey maintains that learning happens as a result of human action in nature and as a result of interaction with nature, as students attempt to solve real problems in daily life, both successfully and unsuccessfully. Action and interaction are summed up in experience. Thus, education must be based on students' experiences in order to help them solve real problems in their lives (Dewey, 1916, p. 159-160). If the content, i.e. subject matter, of schooling cannot arouse student interest, the learning will become passive, hence unsuccessful.

Dewey argues that, "[education] has all the time an immediate end, and so far as activity is educative, it reaches that end—the direct transformation of the quality of experience" (Dewey, 1916, p. 82). Therefore, for Dewey, the operation of education is the reconstruction of experience, i.e. growth, which helps students interpret their present and future experiences. Dewey's concept of growth as the goal of education relates to the intelligent and reflective activity of thinking. The awareness of the relationships among different experiences can be transformed into larger, meaningful units of knowledge through the process of problem-solving and cognitive thinking. Thus, for Dewey, the new knowledge (system) is formed and reformed from the old knowledge (system) which is viewed as both tools and contents in the continuous process.

Conclusion

The main principle of John Dewey's philosophy is that the individual and interactive character of thought must be taken into account in the construction of any adequate philosophy and educational theory. Dewey disagrees that there is something innate in the organism. He overturns the old metaphysical idea of absolute and eternal reality much in the same way as he avoids adherence to any social norm or religious creed which point to inflexibility of reality.

(1) Dewey argues that, as thinking is influenced by human capabilities and emotion, it is impossible to establish any absolute concepts on reality, i.e. Truth, which traditional philosophers pursue. Dewey defines a concept by acquiring what practical effects it involves in the way of experiences between organism and

nature. He regards the experiences as constituting the concepts themselves. Dewey maintain that there can be no absolute truth because the meaning of a concept depends on the context of the individual, even scientific laws are modified again and again through history of history—these laws remain true only in the current state of human knowledge.

(2) Dewey's emphasis on the interactive experience leads to the assumption that although the result of thought is important to the individual, it belongs to the process of effective thinking, i.e. the scientific inquiry. It is "inquiry" which plays the key role in the thinking process; for through this process the adjustment between the individual and the environment around him is made. Inquiry is the process which enables the growing organism to modify its environment and to be modified by that environment into a state of more development. Thus, the truth or falsity of human inquiry depends on its practical reason, i.e. whether it succeeds or fails in its results.

(3) Dewey maintains that the natural method of inquiry involves a preliminary review of the relationship between the organism and the environment for the organism to judge and evaluate the situation as a guide in inquiry. It contains the collecting and arranging in activities, a process related to purposive strategy in physical and intellectual spheres for organisms. The process involves the validity of that preliminary production, organization and reorganization of experience which are tested by experimental inquiry. This organization and reorganization of experience is continuing to form new knowledge. Thus, Dewey views the knowledge is both tools and contents for further inquiry.

An anthropocentric approach of Dewey's philosophy describes the tendency for mankind to regard themselves as the significant entities in the interaction within the nature through human experience. Thus, I argue that when these three perspectives discussed above are clarified, Dewey's philosophy of anthropocentric approach can be suggested in the practice of education.

Notes

[1] But it is an odd contrasting alternative to "absolute reality." Just because we give up pursuing "absolute reality," why must the alternative be "social problems"? For example, we could study concepts and theories in physics, chemistry, or biology. We could philosophize about the implications of astronomy. We could conceptually analyze literature. We could delve into alternative logics. Given all those alternatives, it does not follow that if we reject Hutchins, then we must study social problems. So what is Dewey's real reason for focusing on social improvement? The suggestive answer is the social reconstruction for a democratic society.

[2] Again, what is Dewey's real reason for focusing on social improvement? It is not just that he rejects absolute knowledge, because that leaves a lot of options open. It is because Dewey believes social progress is similar to Darwinian evolution, and is a "reality" underlying all other similar activities. Dewey believes evolution is the most basic reality, above all else. It is basic. It is fundamental. Dewey resembles Hutchins in that both of them seek an ultimate reality: for Hutchins, it is transcendent truth; for Dewey, it is evolutionary progress.

[3] For Dewey, the concept of "the ongoing development of nature" is a basic reality.

[4] In contrast to Dewey, we could think of postmodern varieties of philosophy. Postmodernists also reject Hutchins, but they do not therefore turn to human progress and problem-solving as the alternative paths for philosophy; instead, they turn to consider reality as anarchic and chaotic. Postmodernism does not share Dewey's evolutionary, progressive values. In this contrast, we can see Dewey's real reason for focusing on social philosophy. It is not just that he rejects Hutchins, but also that he accepts Darwin.

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