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Continuity in Experience: Knowledge and
Value in John Dewey's Perspective

Peter E. Okeke

A Thesis
in
The Department
of
Philosophy

Presented in Partial Fulfilment of the Requirements
for the Degree of Master of Arts at
Concordia University
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October 1985



Peter E. Okeke, 1985

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ABSTRACT

Continuity in Experience: Knowledge and Value in John Dewey's Perspective

Peter E. Okeke

This thesis is a critical analysis and appraisal of John Dewey's conception and use of "continuity" as a fundamental principle in his "empirical metaphysics" and epistemology.

Part One is an interpretative look at the constituent conditions and the two indispensable dimensions Dewey ascribes to experience. Relevant distinctions are also drawn here between these experiential dimensions as well as the various meanings Dewey attaches to "continuity"; and support is shown for his claim that experience is not only the basis for all forms of knowing and knowledge, but an all-embrasive continuum.

Part Two is a critical evaluation of the dynamic character of the experiential continuum and of the extreme importance which Dewey attaches to experience as a method of knowing. His emphasis on the unbreacheable continuity

of knowing-activities or methodological procedures of inquiry as it pertains to common-sense and scientific subject-matter is found to be a plausible panacea for problems arising from dualistic epistemological methods proposed and applied by many modern philosophers. The same emphasis equally entails an over-all ambiguity in Dewey's ascription of knowledge or "warranted assertibility".

Part Three is an attempt to diffuse this far-reaching ambiguity surrounding Dewey's conception of "warranted assertibility" as an end-result of mediated cognitive activities or inquiry. It continues to highlight and to question the priority which Dewey ascribes to inquiry or knowing-activities over and above knowledge in itself. My claim is that by over-stressing the dynamic character of the qualities of cognitive situations, and by implying that "utility" is the criterion for the truth of knowledge, Dewey confuses the use and function of prior knowledge with that of knowledge which ensues at the end of an on-going inquiry. My summary and conclusion highlights the prominent merits and adverse implications of Dewey's emphasis on "continuity", implications which Dewey might have avoided in order to make his "empirical method" more compelling and applicable to moral and speculative fields of learning.

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INTRODUCTION

The idea of "continuity" is borrowed from Charles Darwin and used by some traditional pragmatists as a basic principle in explaining how we acquire experience or knowledge and values in general. Darwin had in his theory of evolution, "established beyond reasonable doubt that all living things, including man, have developed from a few extremely simple forms, perhaps from one form, by a gradual process of descent [or continuous deterioration and growth] with modification."¹ While the traditional pragmatists generally adopt the idea of "continuity", John Dewey uses this idea to derogate and reject what he regards as metaphysical dualism and dualistic epistemological methods. He attempts to replace modern philosophers' dualistic methods and doctrines with more plausible theories of "experience," "knowledge," and "values;" that is by emphasizing the idea of "continuity" and by using it as an indispensable principle in his empirical method.

Our main objective in this study is not to trace the origin of "continuity" or of the notion of "experience."

¹Paul Edward, ed., Encyclopedia of Philosophy, 8 vols., 1972, s.v. "Darwin, Charles Robert," By T.A. Goudge.

"Experience is," of course, "an old word in philosophy and as such is loaded with certain traditional affiliations and associations."¹ Since Dewey's ascription of "continuity" to experience tends to embody the presupposition that some forms of disjointedness or discontinuity might be found in experience as well, it appears necessary to highlight, critically analyze and appraise the attached meanings and the implications of his extensive use of the notion of "continuity" in experience as a panacea for epistemological dualism.

In derogating the emphasis which modern philosophers, placed on the disjointed or discrete character of experience, Dewey contends that such emphasis on the discontinuous characters of things in the natural world has constituted artificial problems whose solutions have since eluded many philosophical inquiries: If "experience" and "reason" are regarded as quite distinct and absolutely separable from each other, as the dualistic philosophers imply, how do we explain the common-sense evidence of the admixture of both "stability" and "change" in all aspects of our ordinary lives and everyday live-situations? Moreover, if a permanent line of demarcation or mutual exclusion is to be actually drawn between empirical and rational subject-matter, cognitive and non-cognitive realms, or knowledge and

¹ H.S. Thayer, The Logic of Pragmatism: An Examination of John Dewey's Logic, (New York: Humanities Press, 1952), p. 19.

values in general, with what criterion is such a line to be warrantably drawn? In view of the fact that many attempts to find generally acceptable solutions to these problems have been plagued by paradoxes which derive from dualistic methods of interpretations and seemingly inappropriate characterization of "experience", Dewey indicates that these problems are in themselves insoluble.

As against the inappropriate characterization of "experience" by dualistic philosophers, Dewey describes "experience" as both the subject-matter and method of philosophy. This characterization, in his view, allows for the common-sense evidence of the fact of deteriorations, growth and relational connections between the seemingly discrete, opposing or complementary aspects and forms of knowing, knowledge and values in general. For many of Dewey's contemporaries, this characterization of "experience" represents a plausible attempt to replace the arbitrary "separation of nature and experience with the idea of continuity."¹ When examined more critically, however, this attempt in itself raises a fundamental epistemological issue: How can "experience" which ordinarily exhibits discrete and disjointed characteristic qualities constitute the subject-matter as well as sufficient conditions for knowing and knowledge? Most particularly, how can it constitute the

¹Joseph Ratner, Intelligence in the Modern World: John Dewey's Philosophy, (New York: Modern Library, 1939), p. 1039.

various and quite distinct methods of knowing - that is a role which is traditionally ascribed to the human reason?

The puzzles which surround the above issue are especially aggravated by the fact that Dewey attributes and uses the idea of continuity extensively without giving any specific definition as to what he means by "continuity". With the need to resolve some of these puzzles in mind, we will undertake this study of the notion of continuity in experience with particular reference or restriction to Dewey's concept of "knowledge" and the value of knowledge. Our study is divided into three relevant and related parts. In the first part, we attempt to highlight the important conditions and to clarify the two dimensions which, in Dewey's view, constitute experience. By exploring the possible differences and forms of connections between the experiential dimensions here, we might not only diffuse the apparent ambiguity which surrounds his unique characterization of experience as all-inclusive, qualitatively pervasive continuum or subject-matter and method of inquiry. In the light of similar emphasis which other pragmatists, (like Charles Peirce and William James) placed on "continuity", we might also provide some insight into the various meanings, significances or extreme epistemic importance which Dewey actually attaches to the idea of continuity in experience. Following him, it appears that there are basically two forms of continuity in experience. These are circular and dynamic forms of continuity; and both are quite

indispensable in determining "what", "why" and, especially, "how" we acquire knowledge and values in general.

In part two we examine and critically appraise the functional and methodological characters ascribed to experience. The extreme epistemic importance Dewey attaches to experience as a method of knowing is discussed here along with some of his criticisms of epistemological dualism. This is done with a view to find out how experience might actually constitute sufficient and appropriate conditions for all forms of knowing and knowledge. Moreover, it is observed that,

...what he once called the experiential continuum and now [in his Logic: Theory of Inquiry] calls the continuum of inquiry bears a striking likeness to the continuum of mind and other minds in objective idealism.¹

Although Dewey avoided the problems of inter-subjectivity raised against objective idealism by describing the continuum of inquiry as "experimental", it appears that he, on the other hand, over-looked the epistemic relevances of things in themselves. The main issue that arises from his concept of "inquiry" is, if concrete, perceptual and conceptual objects are characterized merely in terms of their functions, and if inquiry or the totality of cognitive experience is experimental, how do we learn and acquire

¹Max H. Fisch, "Dewey's Place in the Classic Period of American Philosophy," In Essays For John Dewey's 90th Birthday, Edited By Kenneth D. Benne, (Urbana Illinois: University Microfilm Inc., University of Illinois, 1950), p. 19.

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permanent truth or universal and unconditional knowledge about things in live-experience? To resolve this issue, Dewey appeals and emphasizes the connections between the analytic and synthetic aspects and procedural phases of the experimental method applied in the natural sciences. In the light of the contemporary critics of his concept of inquiry, we, in this case, examine the distinctive conditions and the connections which, he claims, exist between phases of inquiries that bear direct or indirect existential references.

In determining the merits and possible demerits of the experimental method which, in Dewey's view, appears to be applicable in acquiring all forms of knowledge, it also appears that he actually regards things in themselves, including knowledge, as "values". In fact, he insists that values generally have double characters; but knowledge in particular, taken as a value, is never immediate or primordial. It is, rather, a cultivated value that needs to be constantly verified or tested and proven through the continuous process of experimental inquiry. In doing this, however, he tends to confuse and blur the differences which are traditionally posited between the implicit and functional qualities of knowledge and values in general, or knowing and knowledge in particular. By emphasizing functional qualities and interconnections of natural objects and events, Dewey, it seems, supplies a plausible panacea for metaphysical dualism and dualistic epistemological methods.

This emphasis, on the other hand, entails the terminological ambiguity which pervades his characterization of inquiry and the ascription of "knowledge" or "warranted assertibility".

In the third and final part of this study, we examine Dewey's concept of "warranted assertibility". And this is done with a view not only to resolve some of the terminological ambiguities; but especially, to elicit from him whether any permanent truth might be actually known about objects and events generally found in experience and in the natural world. Here, we endeavour to derive what constitutes the criteria for values in general and for knowledge in particular. Moreover, since the terminological ambiguities which pervade Dewey's concept of inquiry appear as results of his inadequate categorization of experience, we endeavour to draw some conclusions as to the proper degree of emphasis to be placed on the implicit and functional qualities of knowing and knowledge as such. Finally, the general implications and short-comings of Dewey's idea and uses of "continuity" in experience are summarized and critically appraised in order to determine the over-all merit of the idea of "continuity" itself.

PART ONE

JOHN DEWEY'S METAPHYSICS AND THE CONSTITUENT

DIMENSIONS OF EXPERIENCE

Chapter I

EXPERIENCE AS A SUBJECT-MATTER AND A PHILOSOPHIC

METHOD

Following the empiricists' tradition, Dewey uses the concept of experience as the background for his entire philosophy. His concept of "experience" is, however, quite distinct from what the traditional empiricists generally regard as "experience". For the traditional empiricists, experience designates sense-data or a perceptual base for our higher, and seemingly quite distinct objects and intellectual operations. For Dewey, "experience" furnishes the background, the subject-matter, as well as the methods for all our knowledge. In fact, he advocates unstinting "faith in experience when intelligently used as the only means of disclosing the realities of nature."¹

Due to the added significance which Dewey attaches to "experience", we will begin our study of his idea of "continuity" as well as the use he made of it in his philosophy with an analysis of the important conditions which, in his thought, constitute "experience".² These conditions are

¹John Dewey, Experience and Nature, (New York: Dover Publications, Inc., 1958), p. X.

²"Experience", in this sense, designates an inclusive whole; i.e., what Dewey himself regards as an experiential continuum.

actually many and varied. In the first chapter of Experience and Nature, however, Dewey indicates that there are two main kinds of experience - primary and secondary experience. By this, he implies that experiential conditions might be similarly categorized.

In this first chapter of our study, we will highlight these conditions and the metaphysical interpretation which Dewey attaches to the two dimensions of experience. This examination is necessary in order to remove some of the major difficulties which might obscure a clear understanding of the different meanings he attaches to "continuity". While we intend to evaluate and appraise Dewey's general notion of continuity in Chapter 2, it must be stressed here that, primary and secondary conditions of experience actually overlap and interplay with one another. In fact, they seem to be respectively identical with what he regards as "subject-matter" and "method" of philosophy.

Primary Experience

In his attempt to describe experience, Dewey asserts that,

...experience is of as well as in nature. It is not experience which is experienced, but nature - stones, plants, animals, ...electricity, and so on. Things interacting in certain ways are experience; they are what is experienced. Linked in certain other ways with

another natural object - the human organism - they are how things are experienced as well.¹

This assertion clearly indicates that there are three aspects of nature which constitute what Dewey regards as primary or gross experience. These are the "act" of experiencing, the existent "object" which is experienced, and the "subject" who experiences. Following this outline, it appears that we cannot appropriately answer the question as to what experience really is without considering the constituent elements and immediate apprehensible qualities of natural objects, just as they appear at the common-sense level of existence. The reason for this is two-fold: First, the meaning that attaches to experience cannot possibly be grasped or explained if experience is isolated and considered only in name, not for what it signifies and represents. Second, the meanings of things only derive from their perceivable qualities and characteristics.

For Dewey, the characteristic qualities of "experience" are ordinarily manifest in organic activities and interactive effects of natural objects on one another. Such activities - designating gross or primary experience - always occur in an inclusive situation or natural

¹Dewey, Experience and Nature, p. 4a While we intend to examine Dewey's conception of nature in Chapter 2, it might be observed here that his description of experience in terms of concrete objects and sensible events in the natural world really inclines one to suspect that Dewey is a realist; i.e., as opposed to the subjectivists' views of nature and experience in general.

environment. And they (activities) can be "satisfying or dissatisfying...stable or unstable", depending on the experiencer's degree of awareness and temporal disposition toward the experienced objects within such an inclusive environment "unsophisticated as yet by reflections about it." 1

An objection might be raised here as to the appropriateness of Dewey's description of primary experience: He seems to avoid the question as to the precise "stuff" which constitutes "experience". For instance, is such a "stuff" made of concrete body; or, is it constituted by mere consciousness of our sense impressions, emotions, and so on? Dewey himself anticipates this objection. In a likely answer to it, he indicates that,

To argue from an experience 'being an experience' to what it is of and about is warranted by no logic... What something is, is found out by actual study.²

Rather than stipulate what experience is precisely, he, therefore, shifts emphasis from it to the phenomenal aspects of things in nature.³

¹Donald A. Piatt, "Dewey's Logical Theory," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, (La Salle, Illinois: Open Court, 1971), p. 113.

²Dewey, Experience and Nature, p. 1.

³"Nature", in this case, refers to the entire perceivable world in which individual objects, including ourselves, exist and interact.

This shift is actually significant. It marks the transfer of "experience" from its isolation in the subjective realm of the human existence, by the modern idealists and the traditional empiricists, back into the main stream of events in nature as a whole. By this, Dewey intends to expose the reciprocal relationship of the inner and outer, or objective and subjective aspects of nature. He wants to show that "nature and experience get on harmoniously together."¹ To prove this, he argues that we have no alternative to treating "experience as [the] starting-point, as [the] method for dealing with nature, and as the goal in which nature is disclosed for what it is."²

While we admit the plausibility of the idea of working harmony between "nature and experience," it might be observed that Dewey has exaggerated the idea of "gross experience" irrespective of the philosophic implications of this exaggeration. He tends to clothe the whole of nature in the garb of gross experience by asserting that experience "reaches down into nature; [that] it has depth. It also has breadth and to an infinitely elastic extent."³ This assertion is undoubtedly absurd. It implies that "gross experience" might be used as a synonym to designate every

¹Dewey, Experience and Nature, p. 2a.

²Ibid., p. 1.

³Ibid., p. 4a.

aspect of what we regard as natural reality. Dewey himself acknowledges the absurdity of regarding experience which is "only a tiny part of nature... [as]...competent to incorporate vast reaches of nature within itself." Yet, he insists that,

[the] very existence of science is evidence that experience is such an occurrence that it penetrates into nature and expands without limit through it.¹

To accept this view might, in fact, be to commit ourselves to an abstract and ambiguous view of "reality" or, of the experience-world as a single and an indistinguishable whole.

It might be granted that each natural object has definite length, depth and breadth or, at least, some specific qualities which set it apart as a clearly marked individual, quite distinct from other objects. In this case, it also appears conclusive that every single experience, designating a natural occurrence, might be different and disjointed from every other one. Contrary to this conclusion, however, Dewey argues that "reality" or the natural world itself is generally inclusive of many parts. While each part denotes an existent object, it may equally signify the existence of some other objects or the possible occurrence of future events. He does not, as a matter of fact, dispute that an individual object has some unique qualities and distinctive characteristics. Rather, he indicates that such qualities are neither apprehensible nor comprehensible

¹Ibid., p. 1.

until they are exhibited in natural interactions. What "experience" does is to capture and reflect the relational aspects of things in nature when and wherever it enters.. It follows from this that experience is, first and foremost, the only means and method through which we apprehend, comprehend or contemplate the diverse characters of things in the natural world. In Dewey's own words, experience is "infinitely elastic" and pervasive. "It stretches. That stretch constitutes inference."¹

Common-sense generally evinces the fact that the natural world is all-inclusive of individual objects and events. Even Bertrand Russell, who was a severe critic of Dewey's concept of inclusive "experience" or "situation," acknowledges "that the holistic world is [not] logically impossible."² The problem which arises in Russell's view is whether such an experience-world might possibly form the base and, at the same time, constitute sufficient conditions to "give rise to science or to any empirical knowledge."³

¹Ibid.

²In an essay entitled "Dewey's New Logic," Bertrand Russell observed that Dewey's concept of inclusive situations is holistic and ambiguous. See: The Philosophy of John Dewey, Edited By Paul A Schilpp, pp. 138-140. This criticism is equally applicable to Dewey's concept of "gross or primary experience" which misleadingly seems to include particular objects, kinds, or even the whole universe.

³Ibid., p. 142. See chapter 3 for details on Dewey's idea of "inclusive situations".

Before examining what might be Dewey's answer to this latter objection, it must be stressed that "experience", for him, is "primarily not knowledge, but ways of doing and suffering."¹

Experience is a dynamic or temporal 'affair' which is reciprocal and constituted by all the modes of intercourse between a conscious being and [his] environment both physical and social.²

William James had described "experience" as a "double-barrelled" word which, "in its primary integrity", recognizes no permanent divisions between act and material, subject and object, but contains them both in an unanalyzed totality."³ Dewey uses James' idea to support the view that every human activity is within the domain of "gross experience", not outside it. In his own words, it is "the subject-matter of primary experience [that] sets the problem and furnishes the first data of reflection which constructs the secondary objects" of experience.⁴

It is argued that Dewey's characterization of "gross experience" has left the meaning of the word quite indefinite and ambiguous. On the contrary Dewey himself contends that,

¹Charles W. Hendel, ed., John Dewey and the Experimental Spirit in Philosophy, (New York: Liberal Arts Press, 1959), p. 99.

²Ibid., pp. 99-100.

³Dewey, Experience and Nature, p. 8.

⁴Ibid., pp. 4-5.

[the] indefiniteness of the word as a name is part of... [its] ...fitness. The reference of experience is not to be pinned down to any narrow and limited meaning.¹

In this case, the question as to whether "gross experience" denotes only the interactive characteristics of things or whether it also includes things in themselves might, either way, receive an affirmative answer from Dewey.² The dilemma arising from this indefinite meaning obviously leads one to ask: How can experience effectively join its disjointed parts so as to become systematically cognitive? How can it constitute sufficient conditions for certain knowledge, or indisputable logical forms and principles? Dewey's answers to these questions may be found by examining his idea of secondary or reflective experience.

Secondary Experience

Secondary or reflective experience designates those aspects of nature involving the acts of the human mind. Such acts are intuition, imagination, thought, or reasoning in general. We are told that "nature" is characteristically a mixture of determinate and indeterminate objects and

¹ John Dewey: The Later Works, 1925-1953, Edited by Jo Ann Boydston, and Barbara Levine, With Introduction By Sidney Hook, (Carbondale: Southern Illinois University Press, 1981), p. 331.

² Dewey's answer, in this case, is unacceptable; not only because a part might never rightly mean the same as an entire whole; but also, because to attach an indefinite meaning to "experience" might constitute a source of much confusion in our understanding of different things designated as "experience".

events. It is already accepted that, following our common-sense, we often take many objects and events for granted. This is particularly the case where we are quite familiar with the workings of our everyday environment, and when the phenomenal equilibrium of such an environment goes on unhampered. Due to environmental interactions, however, changes often occur. And being disrupted by such changes, the primary harmonious contexts sometimes become precarious and indeterminate. The fact that our familiar experiences and developed habits are also disturbed by natural changes often forces us to ask questions: We seek to find the reasons for the existing problems, and to consider possible courses of action in order to bring the precarious situation back to working harmony.

According to Dewey, it is the occasional precariousness of our natural situations or primary experience that necessitates the emergence of the human mind which is an indispensable condition for reflective experience. The activities of the mind arise as "means" of providing us with explanations for the occasional indeterminacies of the primary objects. In Dewey's own words, reflective experience "enable us to grasp" the relational meanings and significances of the primary objects "with understanding, instead of just having sense-contacts with them." ¹

¹ Dewey, Experience and Nature, p. 5.

He implies that, as acts of the mind, reflective experience strictly belongs to the human organism, not as primordial attribute, but as an acquired characteristic quality which complements the primary experience. He also implies that, as aspects of the natural phenomena, the acts of thought and reasoning can be comprehended only in terms of their functions and relations. Such functions include all forms of inquiry into existent objects, and into the meanings of existent objects and events.

This position taken by Dewey is obviously in line with the "evolutionary, biological approach to the emergence of mental activity as a function of organism-environment adaptation."¹ This is a view advanced by Darwin; but, it has since been adopted as a valid procedure and "a recurring theme of pragmatism"² It should be emphasized here that following this evolutionary theme, Dewey identifies two main functions performed by the intellect which constitute our reflective experience. First, with the occurrence of reflection, relational meanings of primary objects are subsequently disclosed. Reflective experience might, in this case, be regarded as "a method" of analysis. For,

¹Patrick I. Bourgois, and Sandra B. Rosenthal, "Phenomenology Pragmatism and the Backdrop of Naturalism," Philosophy Today 25 (Winter 1979): 331.

²Ibid.

[when] the secondary objects [ideas and the acts of thought] ...are employed as a method or road for coming at them [primary objects], these qualities cease to be isolated details; they get the meaning contained in a whole system of related objects; they are rendered continuous with the rest of nature and take on the import of the things they are now seen to be continuous with.¹

Second, the intellect is creatively suggestive and systematically directive of natural events wherever it occurs. As an indispensable part of reflective experience, it not only discovers the meanings and relational significances of existent things. It equally constitutes the "means" by which these meanings are structurally arranged into related systems which might be applied to enhance, enrich, or even to innovate and render the objects of our primary experience recurrent and continuous. It has to be acknowledged here that, in being ideational, reflective experience really lacks the physical force to effect any direct changes in the primary objects. Such experiences, nevertheless,

define and lay out a path by which return to experienced things is of such a sort that the meaning, the significant content, of what is experienced gains enriched and expanded force because of the path or method by which it is reached.²

In short, by integrating our present observations and already acquired knowledge, reflective experience actually constitutes an indispensable instrument for the enhancement and qualitative improvement of our knowledge and values in

¹ Dewey, Experience and Nature, p. 5.

² Ibid.

general.

Dewey's account of the emergence of the mind, and of mental activities really seems to be a causal account; as such, the account itself is empirical.¹ We are, in this case, doubtful whether experience, in this self-accountable and self-explanatory form can constitute both the basis and the sufficient conditions for the qualitative improvement and growth of our different forms of knowledge. Irrespective of the controversy which surrounds this issue, however, it might receive a positive answer from Dewey. For, in the views of the pragmatists, there are things which are irreducible in nature. Among them are "perceptual" and "non-perceptual" experiences which "have objectivity as well as subjectivity."² The fact, in Dewey's words, is, "there would be no such thing as consciousness if events did not have a phase of brute and unconditioned 'isness', of being just what they irreducibly are."³

Although Dewey's account of reflective experience seems quite unsatisfactory to us, we cannot possibly accuse

¹ Patrick I. Bourgois, and Sandra B. Rosenthal, "Phenomenology, Pragmatism and the Backdrop of Naturalism," Philosophy Today 25 (Winter 1979): 331.

² Ibid.

³ Dewey, Experience and Nature, p. 86. This assertion really raises a serious question: Are reflective acts and our consciousness natural and irreducible in quite the same manner as physical objects and events? To resolve this issue, we will discuss the characteristic features of consciousness and mind briefly in Chapter IV of this exposition.

him of reductionism. We can, however, object that this causal account which he himself regards as "naturalistic" is not completely free from the faults exhibited by earlier causal accounts of nature and knowledge.¹ Since he recognizes the irreducibility of certain things in experience and nature, it is necessary to examine the distinctions which he makes between the primary and reflective experience. This might enable us to determine the extent to which his self-explanatory and self-accountable form of experience provides the necessary conditions for all forms of cognition and knowledge.

Distinctions Between Primary and Reflective Experience:

Dewey recognizes that there are crucial distinctions to be made between different objects and events in nature. Unlike some philosophers who are inclined toward absolute dualistic views of the world, he treats such distinctions as matter, not merely of degrees of implicit verity, but of ways we experience the interactive effects of things in nature. Following this plan, he indicates that the distinction between primary and secondary experience "is one between what is experienced as a result of a minimum of incidental reflection and what is experienced in consequence

¹David Hume's causal account of human nature and knowledge leads to reductionism. By indicating that all human knowledge can resolve itself into probability, Hume prepared a breeding ground for skepticism. (Hume, A Treatise of Human Nature, rev., ed., By P.H. Nidditch, 1978, p. 181). Dewey's account seems to be liable to a similar fault.

of continued and regulated reflective inquiry." 1

Primary experience, in the above sense, includes concrete objects and events constituting our "common sense post-analytic data" just as they appear within our immediate situation. Things in such prereflective situations are often interactive, not redundant. Subjects and objects with their different qualities, habits of associations and, sometimes, expressions of feelings and emotions, are often found in such situations. If this is the case, then we have to admit that primary experience really constitutes the foreground for doubts and uncertainties. It can provoke cognitive inquiry. As distinct from the primary experience, however, secondary experience designates objects and events which are mediated and derived through reflection. Dewey implies that while primary experience functionally constitutes the initial data for inquiries, secondary experience, taken in functional terms as well, constitutes the "system of meanings" and the different methods of our cognitive inquiries.² In fact, due to our constant need to preserve

¹ Dewey, Experience and Nature, p. 4.

² Although we have used secondary and reflective experience interchangeably to refer to objects and acts of the mind, there is a possible distinction between them: Secondary experience, in Dewey's view, seems to include objective constructs and ideational structures which are mediated by thought. Reflective experience, on the other hand, designates the acts of thought and conscious observations. It is abstract in feature, and it can equally be designated as "the philosophically idealized experience of pure immediacy, of sheer contact of organism and environment". (Sandra B. Rosenthal, and Patrick L. Bourgeois, Pragmatism and Phenomenology: A Philosophic Encounter, Amsterdam: Gruner, 1980, p. 46.)

and enhance life within given situations, we not only engage in conscious observations; we also think. The relational meanings derived through such observations and thoughts are often applied toward control and use of primary objects "for our own betterment, instead of merely being subject to their consequences".¹ The entirety of such things and acts in which thought is involved is what Dewey regards as "secondary" or "reflective experience".

By distinguishing primary and reflective experience in terms of the apprehensible characters and functions of matter and mind, Dewey seeks to resolve the dilemma posited by epistemological and moral dualists. Such dualism appears evident in the absolute mind-body, end-means or act-intention distinctions found in many traditional and modern philosophical theories. Dewey's attempt to resolve these dilemma is, in itself, laudable; but, by implication, it seems to leave "metaphysics with little to do":² The traditional concept of "transcendental Being" which, for modern idealists like Descartes and Kant, is indispensable in determining the real, seems to have been reduced by Dewey into mere functions. He contends that such problems arising

¹ Fleckenstein, A Critique of John Dewey's Theory, p. 3.

² Richard Rorty, "Dewey's Metaphysics," In New Studies in the Philosophy of John Dewey, Edited By Stephen M. Cahn, (Hanover, New Hampshire: University Press of New England, 1977), p. 63.

from metaphysical dualism are artificial and quite insoluble. Hence, quite intentionally, he avoids any direct attempt at resolving them. In the words of Richard Rorty, Dewey. "thought to 'solve' " the mind-body problem "by avoiding both the crudity and paradox of materialism and the 'unscientific' theorizing offered by traditional dualisms."¹

On a more positive note, Dewey indicates that mind and body or, in more general terms, sense objects and the subjects who sense them are within the continuum of experience and in the natural world.² For him, however, such sophistic distinctions made, by traditional empiricists and by sense-data theorists respectively, between primary and secondary qualities of things and between "the sensa" and "the sensed" or sensing and perceiving, appear to be of little importance in resolving the mind-body problem.³ Granting that the intrinsic and the extrinsic qualities of things are quite distinguishable, he equally insists that the former qualities are discoverable and comprehensible to us only through the latter qualities. According to him:

¹Ibid.

²We have already noted the apparent ambiguity which surrounds Dewey's idea of inclusive "experience". While employing the same inclusive character of experience in this case to refer to specific human environments or situations, natural world is used to indicate a more general world or universe of which experience-situations are parts.

³John Dewey, Logic: The Theory of Inquiry, (New York: Rinehart and Winston, Inc., 1960), p. 151.

Things [in themselves and] in their immediacy are unknown and unknowable, not because they are remote or behind some impenetrable veil of sensation of ideas, but because knowledge has no concern with them.¹

As a matter of fact, rationalists and empiricists generally admit that knowledge is mainly concerned with "relations" between things.

If we admit that these relations which constitute the meanings of things are especially exhibited in organic and intra-organic activities, then it might appear conclusive that an object cannot be ontologically isolated or completely separated from its relational effects and meanings. This obviously raises another issue: Where and how is emphasis on such distinctions between the intrinsic and extrinsic aspects of things and their meanings to be rightly placed? In resolving this issue, Dewey indicates that for any distinction made between things to be valid, such a distinction has to be made within an experiential matrix or situation. While he admits that distinctions are quite necessary for us to grasp the meanings of things, he, nevertheless, insists that the extent of emphasis placed on them should be only logical and functional, not ontologically absolute.

Following Dewey, it appears that, that which designates "the real" is always a particular object or event. Yet, he implies that, although we often recognize individual

¹Dewey, Experience and Nature, p. 86.

objects in our ordinary experience as disjointed and isolated from each other as miniature wholes, "every real experience [also] has the potentiality of becoming an inclusive whole."¹ Such potentialities are realized only when the barriers of isolation are broken through reflective inquiry; that is, when the relational meanings and significances of particular objects are disclosed and grasped through reflectively directed activities.

The fact is that Dewey regards the activities of particular objects as "contextual" or "situational". In as much as such activities directly, or indirectly, involve the human organism, the situation in which they occur has to be regarded as an experiential continuum. Such situations are in themselves "real"; but unlike particular isolated objects, such a situation involving the human organism really provides openings for interpretation, control, or further improvements of objects and events included within it. This implies that both physical and mental conditions generally complement or inter-twine and fund each other in all human situations. Taking both "physical" and "mental" conditions, in this case, to refer to primary and reflective experience, it appears evident why Dewey regards the distinctions between them as functional and methodological.

¹D.C. Mathur, "A Note on the Concept of Consumatory Experience in Dewey's Esthetics," Journal of Philosophy 63 (April 1966): 226.

Such distinctions are made in order "to further our understanding of the physical, biological and social factors that enter into concrete or situated experience." ¹

To conclude this Chapter, we must stress that, in opposition to metaphysical dualism, Dewey regards metaphysics itself merely as a descriptive study of the generic traits of nature. ² By this, he implies that "the real", taken in terms of the rationalistic concepts of "immutable substances" and "essential forms" are, in fact, mere abstractions from the primary experience. Abstract entities are, for him, non-existent. As an enterprise of the human mind,

...abstraction from human experience is but a liberation from familiar and specific enjoyments, it provides means for detecting hitherto untried consequences, for invention, for creation of new wants, and new modes of and evil. In any sense in which the conception of essences is legitimate, the human consequences are essences of natural events. ³

"Consequences", in the above sense, refer to many particular objects, actual ends which occur in nature, but which might, in turn, constitute new beginnings or mediating instruments for bringing about the occurrence or recurrence of some other ends within the experiential continuum. "Abstraction",

¹Paul Tibbetts, "John Dewey and Phenomenology on Experience and the Subject-Object Relation," Philosophy Today 15.4 (Winter 1971): 256.

² Dewey, Experience and Nature, pp. 252, 412-413.

³ John Dewey: The Later Works, p. 151.

on the other hand, refers to aspects of our secondary experience which denote both the methods and ideational means for refining and restructuring natural consequences, for interpreting and rendering already existent ends meaningful, controllable and purposively recurrent. In other words, while the primary experience constitutes the foreground, reflective experience which complements it for the human organism, really constitutes the psychological and logical conditions for cognition.

In Dewey's opinion, it appears obvious that there is also a continuum of inquiry.¹ Both psychological and logical conditions embodied within this continuum designate the empirical method of knowing, "method" which he generally characterizes as "experimental." The empirical method is experimental because it channels and redirects "abstract objects" or structures ensuing from reflective operations towards actual fulfilment, improvement, or security of existent objects and events which we regard as values. In fact, as is generally the case with the experimental methods of the physical scientists, Dewey presents his "empirical method" as having an implicit attribute of "protective neutrality". This appears to be his way of indicating that "experience" can become systematic, assume general forms,

¹John Dewey, Logic, p. 140.

and attain universal applicability as a method of cognition.¹

By characterizing the "empirical method" as "experimental", Dewey implies that there is, in fact,

...no existential or ontological gap between appearance or phenomenon and reality. Rather, the epistemic dimension represents a focus on the level of experiencing or having that metaphysical reality which reveals itself through experience.²

It is, nevertheless, difficult to understand how such a method which is, on the one hand, saturated with human elements of emotions and partial sentiments might, on the other, "remain free of arbitrary assumptions."³ It appears quite absurd to assume that "reflective experience", taken as a systematic method or means of cognition, would remain generally impartial and universal while "the oneness and special pleadings attache[s] only to results and conclusions" ensuing from its application at the primary level of experience.⁴ Dewey seems to have plausibly shown that "experience" constitutes both the foreground and the probable terminal for our reflective operations or inquiries. The issue, however, remains as to whether

¹ Hendel, John Dewey and the Experimental Spirit, pp. 104-105.

² Sandra B. Rosenthal, and Patrick L. Bourgeois, Pragmatism and Phenomenology: A Philosophic Encounter, (Amsterdam: B.R. Gruner Publishing Co., 1980), p. 33.

³ Hendel, John Dewey and the Experimental Spirit, pp. 104-105.

⁴ Ibid.

experience might purify itself sufficiently so as to constitute a valid method for our general theories: How can it constitute itself into normative and pure logical forms?¹

Before examining this problem, it is important to elicit and review the various kinds of links which, in Dewey's view, render experience both connected and pervasively continuous.

¹Dewey's notion of how experience can assume universal epistemic characters is examined in Part Two of this exposition.

Chapter II

CONNECTIONS AND CONTINUITY IN EXPERIENCE

The foregoing analysis of primary and reflective experience generally indicates that both aspects of experience are connected with each other, except where reflective experience happens to be completely absent. There are, in fact, several forms of connections and continuity which are implied, and indeed mixed up, in Dewey's "empirical metaphysics." He uses "connections" and "continuity" interchangeably to refer to the relational links between different kinds of objects, or between parts of a complex object. While this is the connotation of these terms in our analysis so far, it is observed that, in Dewey's characterization, "continuity" connotes temporal durations as well as different forms of growth processes found in both cognitive and non-cognitive experience. Thus, it appears necessary to specify the meanings and to elicit his justifications for positing these forms of continuity.

For the sake of clarity in our own analysis, the forms of "continuity" indicated above might be classified into two kinds. First, there is a continuity which designates constant connections between our primary and reflective experience. Aimed particularly at bridging the mind-body gap posited and upheld by rationalists, Dewey presents this kind of "continuity" as characteristically circular and epistemological in function. Second, there is a continuity which

designates spatial and temporal durations of natural objects, as well as physical and psychical, or organic and cognitive growths. This kind of continuity is exemplified in the many forms of changes which occur successively through the various aspects of our experience and nature. Such changes often derive from the contingent operations of existent objects within the same natural situation or environment. For example, some objects act as efficient causes either to produce or to influence the growth of other objects. Similar to such growths ensuing from causal contingencies, there exist some forms of dynamism in our imaginative operations and reflective objects. This dynamism appears evident in the fact that we can infer from our past experiences in order to establish some new facts which might be applicable in the present, or in the probable future.

It must be noted here that the idea of "continuity" is commonly employed by classical pragmatists. Charles Peirce, for instance, emphasized that "the idea of continuity is of prime importance to philosophy" because it signifies the principles of association. He identified these as the principles of "contiguity" and "resemblance", principles which, respectively, denote causal connections due to power from without, and connections due to a power within.¹ Although he attached equal importance to powers

¹Collected Papers of Charles Sanders Peirce, 8 vols., Edited By Charles Hartshorne and Paul Weiss, (Cambridge, Massachusetts: Belknap Press, 1960), Vol.6., pp. 86-88.

from "without and within," Peirce really took special cognizance of the seemingly limitless field of our imaginative operations or inner powers. In fact, he admonished: "More than all that is in thy custody, watch over thy phantasy."¹

Dewey seems to abide by this admonition: He not only insists that our ideas and mental structures from reflections are mere abstractions. He stresses that there is much need for the return of such ideational constructs to primary experience, in order to be tested, proven, or utilized therein. For him, every instance of this return marks the union of reflective and primary experience to form an enhanced and completed circle or phase within the chain of natural events. Again, every instance of this return marks something actually had and enjoyed, something which might subsequently become a background object for more inquiry. We might observe here that "inquiry" itself "is a mode of activity", activity which denotes the integral dynamism of the human mind and body, and implies the possible growth of that which we regard as knowledge.

Circular Continuity

The pragmatists' concept of continuity really seems to incline toward functionalism and experimentalism.

¹Ibid., p. 189

William James, for instance, indicated that human "rationality meant only unimpeded mental function."¹ He also suggested that,

Impediments that arise in the theoretic sphere might perhaps be avoided if the stream of mental action should leave that sphere betimes and pass into the practical.²

This suggestion clearly implies the indispensability of the connections or overlapping functioning of the mental and extra-mental spheres of natural existence. For James, such connections really appear to have both metaphysical relevance and epistemological importance. According to him:

A definition of the world which will give back to the mind the free motion which has been blocked in the purely contemplative path may so far make the world seem rational again.³

Following a similar line of thought, Dewey proposes the idea of a circular continuity between primary and reflective experience. This kind of continuity, in his view, appears evident in the fact that the natural world, as we ordinarily experience it, integrates both objective and subjective or physical and rational conditions of the human life. Mind and matter are equally real; but most importantly, they complement each other's operations in all our cognitive inquiries and effort to maintain life itself.

Dewey emphasizes that inquiry cannot proceed without the circular continuity between the primary and reflective experience. This is because neither our mind, nor the body is, at any instance, a complete spectator in our constant

¹William James, The Will to Believe and Other Essays in Popular Philosophy and Human Immortality, (New York: Dover Publications, Inc., 1956), p. 75.

²Ibid.

³Ibid., p. 75

search for knowledge and values. Both are significant influences and functional contributors to what we actually know and what we acquire in terms of values. This claim is obviously supported by the truism which indicates that there are no such things as disembodied minds in nature:¹ Life, for the human organism is "psycho-physical," not just awareness "of meanings".² For Dewey, this indicates that mind-body operations are two aspects of the same continuous natural process.

To clarify his claim of a circular continuity between mind-body operations, Dewey characterizes life itself as "a process of activity that involves the environment;" and, as "a transaction extending beyond the spatial limits of the organism."³ Life, in his view, is generally precarious. The need to preserve it is often what forces us to keen attention, or particular awareness and interests in objects and events in and around us. In doing this, we constantly note and assign meanings to such objects and events.

It is acknowledged that special attention might sometimes be paid to the meaning of meanings as such. For Dewey, however, such attention is more likely aimed at making purposive distinctions and significant differences in the prevailing conditions of life and actual environment.

¹Dewey, Experience and Nature, p. 227.

²John Dewey: The Later Works, p. 198.

³Dewey, Logic, p. 25.

Although he characterizes the human life as "psycho-physical", yet it appears that certain life-activities might be regarded as purely intellectual: Through the use of "ideas" in its operations, the mind often transcends the limits of our spatial environments in order to analyse, restructure an existing indeterminate condition or to formulate an enriched system of meaningful relations. Following such operations, however, the return of the mind to actual life-conditions really appears to be necessary, enriching and effectively fuller. According to Dewey:

Nothing but unfamiliarity stands in the way of thinking of both mind and matter as different characters of natural events, in which matter expresses their sequential order, and mind the order of their meanings in their logical connections and dependencies.¹

This treatment of matter and mind is particularly aimed at derogating the Cartesian or rationalists' doctrines which tend to portray the mind as quite-independent, absolutely separable or immune to the influences of the body. Dewey sees mind-body operations as contingent and responsive to each other's influences. Taken as "sequential" and "logical" orders, matter and mind operations imply what Peirce termed "contiguity" and "resemblance" or powers from without and from within respectively. Added to this, Dewey indicates that the "rational operations grow out of organic activities

¹John Dewey: The Later Works, p. 66. It might be observed that by describing matter and mind as characters of events, Dewey tends to reduce both aspects of nature to mere functions. Such a reductionist approach really contradicts his earlier acknowledgements of the fact that there are some irreducible elements in nature (see chapter One).

without being identical with that from which they emerge."¹ This seems to be proven in the fact that without the material brain, systematic "reason" might be equally non-existent.

Granted that rational operations are not identical with organic activities, one might rightly contend that such operations are independently conceivable and, to a large extent, free from each other's influences. As opposed to this view, Dewey insists that the results of our rational operations should be returned and applied systematically as "means" or methods to direct and control the organic activities.² He stresses that "there is no breach of continuity" between our life and logic.³ To prove this, however, he has to satisfactorily disprove the independent functioning of our rational operations.

We cannot deny that Dewey's interpretation of mind and body in functional terms rightly explains our life experience as a continuous circular process of "doing", "undergoing", and "more doing". With this approach, he seems to have plausibly resolved the mind-body problems posited by absolute dualists. His idea of circular continuity clearly exposes what might be regarded as the fundamental basis for the growth of our knowledge. This base is found in organic activities which are psycho-physical, contextual and, often, problematic. An

¹Dewey, Logic, p. 19.

²Ibid., p. 24.

³Ibid., p. 19.

objection might, however, be raised against Dewey's treatment of our intellectual operations. For, although he recognizes the transcendental¹ character of such operations, or of mental objects in general, he emphatically postulates the need for their return and verification within the primary organic contexts.² Being concerned with the physical and the social aspects of experience, Dewey tends to posit them as absolute criteria for measuring the validity of logical objects or purely intellectual aspects of experience. He, in other words, seems to overlook the universal and unconditional characters of logical relations, principles, and conceptual forms.

We might stress here that "ideas" in themselves are, in Dewey's view, "real", just like every other object in experience. Yet, if "ideas", taken as outcomes of mental operations, cannot be actually realized, in as much as they remain wishful and remote, such ideas are considered insignificant by Dewey. We might not, for instance, doubt the possibility of hallucinations and illusions. Dewey himself specifically

¹Quite distinct from the meaning attached to it by traditional and modern idealists, "transcendental", in Dewey's sense, seems to connote something that is to come in the near future. It implies some form of expectations or unobjectified and, as yet, unconditioned experience.

²This emphasis anticipates Dewey's experimentalism. More importantly, it implies the hypothetic nature and the instrumental characters of ideational constructs and objects found in our reflective experience. Analysis and appraisal of Dewey's experimental method is undertaken in Chapter IV of this thesis.

recognizes the possibilities of their occurrence.¹ His emphasis indicates that so long as the actual contents of our ideas and mental constructs, just like those of illusions and hallucinations, are psycho-physically empty - that is, not experimentally verifiable or publicly observable and obtainable through objective activities - then they are unreal.

It is in the experimental procedure, therefore, that Dewey found the knot which, at every instance, ties the ideational and the physical realms of experience into a circularly continuous whole. Actually, he seems to use such a procedure ambiguously to refer to "activities" irrespective of their being either subjective or objective. This ambiguity is aggravated more by his use of the same term to refer to the over-lapping character of strict laboratory or mechanical procedures applied in various physical sciences. In brief, while positing the idea of "circular continuity", Dewey simply overlooked the need for precision and clarity; that is, as to the peculiar meaning he, in his naturalistic philosophy, attaches to the "experimental method" or procedure. While he seems to imply and use the term exactly in the same sense as the natural scientists, he, most particularly, uses it to imply the possibility of continuous growth in all aspects of experience.

Dynamic Continuity:

Dynamic continuity in experience denotes growth and

¹John Dewey, "Experience, Knowledge and Value: A Rejoinder," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, pp. 570-571.

durational characteristics evidently manifested in the life of organic objects. This second kind of continuity should not be, however, construed as completely independent of circular continuity. It is, in fact, an aspect of the latter. While circular continuity renders individual organisms or aspects of nature teleologically unique and connected within nature itself, dynamic continuity, ensures that the actual, psychological and logically distinctive conditions of our life and knowledge fund and qualitatively enrich each other's growth. In order to prove his claims about dynamic continuity in experience, Dewey appealed to the natural and historical evidences of developments and changes found in life and socio-cultural structures. To understand his idea of dynamic continuity, it is, therefore, important to examine his concept of "nature" briefly.

Dewey's Concept of Nature:

In considering the nature of nature, the outstanding issue is not concerned so much with the constituent elements or "stuff" which make up what we generally call "nature". There is supposedly no singular element which might characterize "nature" in its entirety. It also appears that "nature" constantly exhibits an indifferent face toward individual objects, sequences, and consequences of events within it. Considering natural interactions and consequent effects which individual objects have on one another however, Dewey characterizes "nature" as "an affair of affairs," and a history of histories. He sees "nature" as a growing process constituted of many parts, parts which have different

beginnings and endings. Each part is, in itself, a complex affair which, "no matter how linked up it may be with others, has its own qualities."¹

For Dewey, individual processes and natural objects generally exhibit themselves in three characteristic ways or stages; as a beginning, an intermediate stage, or, as an ending. Each of these faces presented by a natural object at any particular instance is, none-the-less, real. It has to be stressed that what Dewey really opposes is any characterization of "reality" or of particular things in nature as fixed, ultimate, or unchanging "ends" in themselves. Against such characterization and "common identification of reality with what is sure, regular and finished," he indicates that "the world of empirical things includes the uncertain, the unpredictable and hazardous."² If this is the case, then our concern in characterizing "nature" should be equally with its stable and changing aspects.

As a matter of fact, Dewey acknowledges that there are primordial objects and events which occur strictly through natural causes, "without control" and "apart from reflective choice and art."³ Since such objects often present themselves in our common-sense experience not as fixed, but as antecedents

¹Dewey, Experience and Nature, p. 97.

²Ibid., pp. 47 & 42.

³John Dewey: The Later Works, p. 126.

which might equally act as efficient or intermediate causes for other natural occurrences, Dewey concludes that neither "nature" as a whole, nor individual natural objects and events within it are made up of "rigid and lumpy substances."¹

Since nature, as an affair of affairs, really evinces the fact that the ending of one event often marks the beginning of another, it appears plausible to regard individual natural ends as temporal "conclusions", not permanent "closings".² In fact, Dewey uses the idea of "conclusions" to indicate that natural objects and events have open endings. Such an ending might be esthetically enjoyed or detested; but, it might as well stimulate cognitive inquiry and act as an intermediate cause to constitute subsequent endings.³ If we consider that natural endings, as endings of activities, could recur, then the claim that such ends could be controlled, restructured, or directively reconstructed to suit human uses and purposes might be equally admitted as plausible. The possibility of control of natural activities really shows that

¹Dewey, Experience and Nature, pp. 97-107.

Dewey raises a fundamental ontological question as to the real nature of existent things. It seems, however, that he failed to supply a satisfactory answer to this question; that is, in the traditional philosophical understanding of the term "substance". In fact, he seems to avoid any direct attempt at resolving the issue by implying that there is no singular fixed end or absolute beginning in nature.

²John Dewey: The Later Works, p. 127.

³"Inquiries" and "subsequent endings", as they are used here, imply that things in nature, including our knowledge, can grow. They also imply that such growth can be controlled and enhanced through the on-going activities of existent objects.

while there are various orders of "sequences and co-existences" involved in nature, these orders constantly influence each other so as to bring about the qualitative improvement and growth of natural ends. The influence of the cognitive on the non-cognitive order is particularly exemplified in the natural sciences where the human intelligence is often applied on purpose to alter and direct "the course of affairs [in order] to forecast conclusions."

From the evidence of the human socio-cultural history, it also appears evident that intelligence and thought always make a difference wherever they occur. According to Dewey, the influence of intelligence is possible in nature,

...because intelligence is incarnate in overt action, using things as means to affect other things....It [intelligence] is disposition of activity, a quality of conduct which foresees consequences of existing events, and uses what is foreseen as a plan and method of administering affairs.¹

This conclusion is proven in the fact that we constantly draw evidence from our memory of past occurrences in order to sustain the present, or to predict and plan for the future. We often add new ideas to improve old ones and control the activities of existent objects in order to bring about expected events.

Dewey's appeal to the evolutionary trend and chain found in nature itself actually reveals that nature, or what we often call "reality, is the growth process itself."² We

¹John Dewey: The Later Works, p. 126.

²Dewey, Experience and Nature, p. 275.

cannot, for instance, dispute that,

...childhood and adulthood are phases of a continuity, in which just because it is history, the later cannot exist until the earlier exists (mechanistic materialism in germ); and in which the later makes use of the registered and cumulative outcome of the earlier - or more strictly, is its utilization ('spiritualistic teleology in germ').¹

This indisputable fact of biological growth clearly evinces the dynamic continuity which exists in our primary or gross experience. Similar continuity in reflective experience is evinced by the facts of constant inferences from the past to the present occurrences, and from both past and present to the future. For Dewey, however, the dynamism or growth of reflective experience is not something totally confined to the inner realms, or to relatively subjective intellectual operations. It is something which is publicly manifestable and sharable among many individuals. He insists that such public manifestation of growth or continuity in reflective experience is exemplified in the many series of improvements found in our various forms of social interactions - in our languages, refined methods of discourse, teaching techniques, learning procedures, and in the over-all developments of our various social values.

An objection might be raised as to the indefinite place given to pure ideational objects, principles and "relations" which often appear to be immutable within this experience-world that seems to be all-changing, flexible and continuous. Dewey acknowledges that philosophy, as a speculative

¹Ibid.

discipline should rightly deal with abstract objects and various forms of relations. Arguing, however, that thought is always "intermediary between some empirical objects and others," he stresses that the abstract and the ideational should be regarded as instruments of control. This raises a fundamental problem: If such instruments of control are all-changing and flexible, how can they be dependably relied upon to bring about systematic changes and qualitative growths to the rest of our present and future experiences?

In positing the idea of dynamic continuity, Dewey assumes that the uses of abstract objects and relations are "no different in kind from the use of natural materials and energies."¹ This assumption seems preposterous. Abstract objects are, admittedly, not completely isolated from the rest of nature and natural phenomena.² Dewey himself rightly indicates that, "Thought like Being, has two forms, one real; the other phenomenal."³ Stressing the latter form in

¹Ibid., p. 67.

²Ibid. "Natural materials and energies" or "natural phenomena", in the sense Dewey uses them here are quite ambiguous. This is because, while he attempts to discredit philosophical dualism and advance a non-dualistic framework of experience, he also refuses to make distinction between "natural phenomena" as conceived and defined by natural scientists and by speculative philosophers or metaphysicians respectively.

³Ibid., p. 66.

particular, he asserts that,

...thinking is a continuous process of temporal reorganization within one and the same world of experienced things, not a jump from the...[physical or sensible]...world into one of objects constituted once for all by thought.¹

He failed to consider that, if the phenomenal aspect of things is similarly emphasized at the expense of their inherent or "real" nature, then it might be quite difficult to find an appropriate ground to prove the possible control of the phenomenal. In other words, while bringing "abstract objects" and "relations" within the enclave of the changing and growing world, Dewey overlooked the immutable "germ" which renders these relations in themselves "real". He neglected that "something" which makes an abstract object quite dependable as a tool for monitoring, improving and controlling the activities and growths of existential objects. In brief, he seems to confuse the operational flexibility of ideational objects and abstract relations with their being in themselves transmutable when employed as directional "means" or methods.

Before engaging in further analysis of Dewey's idea of cognitive growth, it is important to summarize this part of our analysis by outlining the main objections raised against his "empirical metaphysics" and the general idea of continuity in experience. First, while Dewey rightly asserts the existent fact of "continuity", he failed to analyze or to give an explicit and precise "definition of what he means by

¹Ibid., pp. 67-68

continuity" in experience. According to H.S. Thayer:

Dewey speaks of continuity variously as an existential trait, a methodological hypothesis, a fact of nature, and a principle of inquiry. Whether the meaning of 'continuity' thus affirmed in these contexts differs accordingly or remains the same is a moot point.¹

We have, in fact, shown that Dewey uses "continuity" in two general senses; that is, to imply "circular" connections and "growths" of things in nature as a whole. This does not deny that he actually derives and, at the same time, applies the idea of "continuity" in an equivocal fashion. In Thayer's words,

...continuity conveys the spirit of development, completion, resolution, and value for Dewey, while discontinuity is of the flesh - destructive, partial, troubled, and problematic.²

An instance of this ambiguity appears clearly in Dewey's metaphysics. He uses "continuity" therein to blur the heterogeneous identities not only of individual objects involved in "experience", but also of the various epistemic conditions and subject-matter. By asserting that the use of abstract objects is no different in kind from the use of other objects in the physical world, Dewey apparently blurs the differences between mental and extra-mental objects, acts and intentions, or logical and psychological subject-matter.

Second, while it is plausible to admit that human acts and intentions, or theories and practices are,

¹H.S. Thayer, Meaning and Action: A Study of American Pragmatism, (New York: The Bobbs-Merrill Co., Inc., 1973), p. 116.

²Ibid.

...indeed, as he argues, closely connected in science, he seems to suggest, further, that the import of theory can be wholly encompassed within the sphere of action and observation.¹

This "later suggestion," according to Israel Scheffler, "cannot be sustained." This appears to be the case because scientists have not as yet captured "the process by which theoretical ideas are generated."² Since the independent functioning of the human intellect in dealing with pure mathematical objects for instance, has not been explained by natural science, it appears that the theoretical realm cannot, without disputable presumption, be confined within the "sphere" of physical actions and observations. Scheffler implies that such uncertain presumptions might be avoided if pure intuitive subject-matter and the "creative processes" of our intellect are left to "remain independent" of routines and [practical] procedures."³

In view of this objection, it is important to observe that Dewey's naturalistic interpretation of mind-body functions, or his idea of circular and dynamic continuity of the inner and outer realms of experience may be easily misconstrued and condemned prematurely. This might be the case if one form of "continuity" is completely overlooked, while the other is especially emphasized and criticized. As a matter of fact,

¹Israel Scheffler, Four Pragmatists: A Critical Introduction to Peirce, James, Mead, and Dewey, (New York: Humanities Press, 1974), p. 204.

²Ibid.

³Ibid., pp. 204-206

the reason given by Scheffler for asserting the independent functioning of the intellect in formulating abstract theories is quite legitimate. Yet, it appears quite inadequate and unconvincing for us to reject Dewey's idea of inclusive continuity in experience. This rejection is particularly difficult because Dewey himself acknowledges the irreducibility of some natural objects and processes. There is, however, a serious problem of ambiguity which derives from his failure to clarify his ideas of "reducible" and "irreducible" objects.

To conclude this part of the exposition, we must note that although Scheffler, like many of Dewey's critics, raises much doubt as to the general applicability of the continuity postulates, he upholds the plausibility of the idea.¹ We have shown, in the foregoing analysis, that "continuity" implies causal contiguity, growth, duration and inferential connections between heterogeneous objects and events within a natural environment or human situation. The plausibility of this idea is evident in the fact that an object can signify and, as well, be signified by other objects: Things in nature generally acquire meanings for us through such transactional relations with one another; that is, by putting up faces as causes or signs for some things, and then, as consequences for others. Certain natural processes can, similarly, enhance the duration and growth of some other processes, while their own continuous growths are equally funded by others.

¹Ibid., p: 206

Dewey actually laid much emphasis on this latter view; that is, on nature and experience as continuous processes. In fact, it is the many implications of this partial emphasis which entails an over-all ambiguity for his naturalistic metaphysics in particular, and for his philosophy in general. In positing the "continuity" postulates, Dewey seems to be in a serious dilemma from having to choose between monism and pluralism. Although the attractive qualities of the latter really prevail with him, the enticing ingredients of the former would not really allow itself to be completely neglected in his ensuing theories. Hence, for Dewey, all there is, is a continuum of experience.

PART TWO

THE PROCESS OF INQUIRY

Chapter III

THE PRIMARY CONDITION OF INQUIRY

There are various controversies which arise from Dewey's conception of "experience" as an all-inclusive continuum. Questions often raised concerning the seeming limitlessness of the "experiential continuum" include problems that are traditionally regarded as strictly moral, social, or epistemological. This part of our analysis will, however, be restricted to exploration and critical appraisal of the epistemological implications of Dewey's idea of "continuity". We will attempt to elicit some clarifications for the epistemological relevance which he attaches to the "experiential continuum"; that is, as an indispensable condition for the acts of knowing and knowledge.

A clear understanding of the epistemological relevance of the idea of "continuity" seems necessary in order to appreciate, or even to criticize Dewey's answers to some fundamental epistemological questions. In fact, he attempts to resolve such epistemological issues as: How do we really acquire knowledge? What is knowledge? Is it, for instance, an ultimate good or just a value whose identity and validity depend on its functional effectiveness as an instrument designed to enable us satisfy certain conditional needs or

situational demands? Added to these outstanding problems, the idea of an all-inclusive continuum of experience, as we saw in the first part of this exposition, really tends to blur such distinctions which are traditionally made between the acts of knowing and knowledge as such, or between different methods and different forms of knowledge.

As a matter of fact, Dewey not only criticizes such distinctions made between rational and empirical methods of knowing or forms of knowledge, but rejects them for being unwarrantably dualistic.¹ His subsequent attempt at replacing epistemological dualism with the notion of "continuity" really marks a significant diversion from traditional philosophical concepts of knowing and knowledge. This bold attempt seems to have plausibly resolved the problems of epistemological dualism on the one hand, but on the other, the partial emphasis on "continuity" seems to lead to new problems: For instance, how are the apparent differences between practical and theoretical methods, or empirical and rational principles to be explained within the all-inclusive continuum of experience? Moreover, if knowing and knowledge always bear some references to all-inclusive contexts or to the continuum of experience, how do we derive and explain the unconditional and universal characters of rational knowledge, principles and logical forms?

Dewey, in his Logic: The Theory of Inquiry, actually

¹Dewey's main objections and criticisms of epistemological dualism are briefly examined in the second half of this chapter.

anticipates the latter issues.¹ To resolve them, he posits a distinction between what he regards as "primary inquiry" and "inquiry into inquiry".² Before examining this distinction, however, it is important to analyze the idea of inclusive problematic "situations" which, for him, serve as the primary conditions or the controlling factor in every inquiry and knowing in general.

The Problematic Situation:

A situation is used by Dewey to designate a qualitatively unique whole or "an environing experienced world."³ He asserts that "a situation" is inclusive of different objects and events:

What is designated by the word 'situation' is not a single object or event or set of objects and events. For we never experience nor form judgements about objects and events in isolation, but only in connection with a contextual whole. This later is what is called a situation.⁴

It might be observed that the term "situation" compares quite favourably, as a synonym for Dewey's metaphysical concept of an all-inclusive "continuum". Unlike the "continuum of experience", however, the idea of "a situation" implies that there are spatial limits, temporal relations and bounds on included

¹Dewey, Logic, pp. 4-5.

²Ibid., p. 4.

³Ibid., p. 67.

See Chapter 4 for further discussion on the different phases of inquiry.

⁴Ibid., p. 66.

objects and on-going events.¹ In explaining what Dewey means by "a situation", George R. Geiger observed that it is like a "field":

'Situation', like 'field' implies a range. It stands for something inclusive of a large number of diverse elements existing across wide areas of space and long periods of time, but which, nevertheless have their unity.²

If "a situation", as Dewey implies, is both spatial and temporal, some questions would inevitably arise: How much does a situation embrace? What might be included or, supposedly, excluded from it? And how large might a situation actually be? These questions were, however, either overlooked, or left unanswered by Dewey. Rather, he emphasizes the relevance of diverse situational elements in rendering such "a situation" cognitive and qualitatively harmonious. For him, "a situation" is defined and determined not by its size and scope, but most particularly, by its predominant pervasive quality.

It might be objected that, by failing to discuss the questions about the size or spatial limits and scope of "a situation", Dewey really left room for much equivocation.

¹Since we do not intend to engage in a discussion of philosophical concepts of space and time in our present analysis, it is important to note here that the spatial and temporal features of the situation, as they are implied here, are quite common-sensical. They are, however, not intended to indicate that a situation is characteristically physical or merely intellectual; in fact, a situation might include both aspects of our natural phenomena.

²George R. Geiger, John Dewey in Perspective, (New York: Oxford University Press, 1958), p. 31.

In fact, Bertrand Russell observed that Dewey's idea of "a situation" is "holistic" and quite ambiguous:

Although this question [about its size and scope] is nowhere explicitly discussed, I do not see how, on Dr. Dewey's principles, "a situation" can embrace less than the whole universe; this is an inevitable consequence of the insistence on continuity.¹

According to J.E. Smith however, Dewey's concept of "a situation" readily becomes "an object of confusion" when it is thought of "in quasispatial terms which focus attention on...its boundaries or limits."² While references to the spatial limits or scope of "a situation" might seem inevitable, it appears

...in the end [that] this way of thinking is unpromising because Dewey's way of characterizing a situation is chiefly through its quality: the boundary of any situation turns out to be a matter of relevance or functional relation between its constituents depending on the quality which defines that situation.³

Dewey's emphasis on diverse situational elements is, in other words, intended to indicate that the quality of "a situation" is not dormant or permanently stable; diverse situational elements often interact with each other. And such interactions are what make "a situation" dynamic, occasionally stable,

¹Bertrand Russell, "Dewey's New Logic," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, pp. 139-140.

²John E. Smith, Purpose of Thought: The Meaning of Pragmatism, (New Haven: Yale University Press, 1978), p. 100.

³Ibid.

and sometimes problematic in character.¹

It is the problematic character of "a situation" which imbues it with epistemological relevance. Following Dewey, it appears that there are two main characteristics of "a situation". First, every situation has a given pervasive quality which could be momentuously had or immediately felt by any one who comes in direct contact with that situation. Such immediate qualities designated, by Dewey, as "esthetic" are what make "an individual situation indivisible and unduplicable."² Because these esthetic qualities only denote the "final feel" of each situational moment, they are, in Dewey's view, not items of "discourse or knowledge".³ Second, every qualitative situation includes a diversity of interactive elements. Due to the equally diverse forms of relational consequences which derive from the constant interactions of these situational elements, the qualitative situation as a whole becomes, upon some occasions, indeterminate or problematic in character. Where a qualitative situation becomes really

¹A fundamental implication of Dewey's emphasis on the qualitative rather than the quantitative aspect or size and scope of a situation is that the quality of a human situation might, for instance, differ from that of a similar situation involving other animals or only trees and inanimate objects. Where these organisms share the same natural environment, Dewey, on the other hand, implies that the pervasive quality which unites such a situation could nevertheless, remain stable or unstable depending on the diverse forms of interactions between the included, and equally diverse number of elements.

²Geiger, Dewey in Perspective, p. 32.

³Dewey, Logic, p. 68.

problematic, it appears obvious that some adaptive responses might have to be made on the part of the included objects. Such responses are particularly necessary on the part of living organisms in order to readjust, or to preserve and ensure the continuous course of their lives within the interactive situation.

The needs for "adaptive responses" are, in Dewey's view, aggravated when a primary situation becomes qualitatively indeterminate or problematic. On the part of the human organism, these primary needs often stimulate doubts, inquiry or investigative observations and thoughts. The actual fulfillment of human situational needs is partially achieved through these secondary activities which Dewey describes as intellectually ordered operations of inquiry. As a matter of fact, he acknowledges that a "universe of experience [designating an inclusive qualitative situation] is the precondition of a universe of discourse."¹ And by this, he implies that,

...experience is not a knowing-experience save as there is something dubious or problematic, calling for judgment about and hence inquiry into the meaning of the situation.²

Following him, it appears that without situational problems and relations disclosed through constant interactions of diverse situational objects, these objects in themselves would be meaningless. In fact, life within the qualitative situation

¹Ibid., p. 68.

²Donald A. Piatt, "Dewey's Logical Theory," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, p. 117.

might either be non-existent or incomprehensible.

It has to be stressed that "the concept of the problematic situation is... [so fundamental in Dewey's logical theory that] ...by means of it 'inquiry' is defined.¹ The emphasis which Dewey attaches to the problematic situation is actually intended to indicate that individual situational objects cannot acquire any crucial cognitive relevance if they are completely isolated from such complex interactive contexts or situations:

They [singular objects] become affairs of inquiry, of thoughtful discrimination, of careful noting when there is a question of having them again, or of what they mean relative to other things had or relative to their conditions and consequences.²

In the words of Bertrand Russell however, it would "seem to follow that all inquiry, strictly interpreted, is an attempt to analyse [a whole complex situation or even the whole] universe."³

Before engaging in further analysis of Dewey's conception of "inquiry", it is important to emphasize that the dynamic or two-fold character which he attaches to a qualitative situation is intended to resolve the problems posited by epistemological dualism. Dewey sees the esthetic or

¹Dewey, Logic, p. 67.

²Donald A. Piatt, "Dewey's Logical Theory," In The Philosophy of John Dewey, Edited By Paul A. Achilpp, p. 116.

³Bertrand Russell, "Dewey's New Logic," In The Philosophy of John Dewey, Edited By Paul. A. Schilpp, p. 139.

determinate and the indeterminate situational qualities as, respectively, non-cognitive and cognitive items of inquiry. By this, he implies that knowing and knowledge are most essentially concerned with matters involving relational meanings and significances of objects within an interactive "context".¹ The attribute of a two-fold character to the qualitative situation, nevertheless, raises the issue as whether Dewey is not indirectly endorsing the same kind of dualism which he claims to reject: By attaching fundamental epistemic relevance to the inclusive situation, is Dewey not denying the fact that single situational objects have distinctive identities which make them different, not only from each other, but also from such situational events involving them? If this denial applies, how can he, on the other hand, justify the distinction which he made between the cognitive and noncognitive realms or between the determinate and problematic situational qualities? It is quite likely that Dewey would argue strongly against these objections. Such answers as he would give might be found through a brief examination of some of his objections against epistemological dualism.

Dewey's Criticism of Epistemological Dualism:

Epistemological dualism might be recognized in several forms. In Dewey's view, such dualism is exemplified in such

¹This position taken by Dewey anticipates his subsequent denial of the possibility of "immediate knowledge". We will examine and evaluate the implications of this denial along with his notion of "warranted assertibility" in Part Three of this exposition.

absolute divisions and diverse conceptions, which tend to set practical and theoretical subject-matter, scientific methodology and logic, or physical and mental activities against one another. According to him:

Most of the dualisms forming the stock problems of modern epistemological theory have originated...out of the assumptions...[that]...cognitive experience and its subject-matter [are isolated] from other modes of experience and their subject-matters...[This isolation leads]...inevitably to disparagement of things of ordinary qualitative experiences...[or]... to 'derogation of...purpose and traits characterizing human individuality'- or else in [to] an effort to justify the latter by assertion of a super-scientific, supra-empirical transcendental a priori realm.¹

Dewey, on the one hand, sees these assumptions as backdrops of uncritical acceptance of traditional metaphysics; on the other, he indicates that such assumptions are quite arbitrary and unwarranted.

As a matter of fact, some modern philosophers had assumed that there are unbreachable gaps or absolute differences between empirical and rational subject-matter, or between various methods by which we acquire knowledge about them. This assumption was particularly aimed at resolving some fundamental epistemological issues concerning the seemingly distinct objects, forms, or the true nature of knowledge itself. For instance, are "real" objects of knowledge antecedent existences or, do they emerge merely as outcomes of transient empirical activities in which the knowing mind has only passive roles to play? Again, are such objects

¹John Dewey, "Experience, Knowledge and Value: A Rejoinder," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, p. 524.

permanent and unchanging forms which are immaterial and universal in character or, are they merely "particulars" which are both material and subject to constant natural changes?

Dewey himself acknowledges that any attempt to resolve these problems is bound to face many difficulties. This is because the problems themselves have close bearings to arbitrary metaphysical conceptions, conceptions which proscribe or subjugate the existent facts of natural "change" to the idea of "unchanging" forms or an eternal "Being." Against this arbitrary preference which the traditional philosophers gave to the "ideal" or permanently stable forms, Dewey argues that "stability" and change are complementary traits of all natural objects: These traits, as they are occasionally exhibited by natural objects, might be recognized as quite distinct, but they cannot be actually separated, understood or known in isolation from each other. In Dewey's own words:

Qualities have defects as necessary conditions of their excellencies; instrumentalities of truth are the causes of error; change gives meaning to permanence and recurrence makes novelty possible.¹

From this, it seems to follow that to subjugate either of the characteristic traits of natural objects to the other would be to constitute an artificial dichotomy between these traits.

In fact, the problems of epistemological dualism appear to be both artificial and insoluble. It seems that the same kind of problems found in Plato's ontology and epistemology had been misleadingly introduced into modern epistemology: By setting "empirical" and "rational" subject-matter or methods against each other, modern dualists tend to aggravate

¹Dewey, Experience and Nature, p. 47.

rather than resolve the problems which should constitute the real concerns of any epistemological theory. These philosophers generally seek to resolve the issue as to "how" we acquire knowledge. In doing this, they often place emphasis on the "nature" or characteristic traits and "forms" of knowledge, rather than on the reasons "why" we seek to acquire knowledge. It is failure to consider the issue as to "why" the knowing subject seeks to acquire knowledge which, in effect, led many of these philosophers to misconstrue esthetic subject-matters as forms of knowledge. In Dewey's view, this misconception appears apparent in the fact that dualistic philosophers commonly accept "direct intuition" or immediate experiences as forms of knowledge.

Dewey himself "rejected the idea that aesthetic subject-matter is a form of knowledge".¹ He indicates that acceptance of such a view not only blurs the recognition of the "contextual" and operational character of knowledge. It equally implies that there are unbreachable gaps between the "acts" of knowing, and "knowledge" which derives as an end result of such acts. To rectify this, he argues that there are mutual interactions, dependencies, or connections and continuity among existent objects and events within the natural world. Such mutual connections in nature, apparently evinced in life-activities, on the other hand, foreshadow similar forms of continuity within our cognitive experience.²

¹Geiger, Dewey in Perspective, p. 33.

²Dewey, Logic, pp. 35-36.

Following Dewey's argument, it appears that to overlook the fact of mutual connections and continuity between the objects and events in cognitive experience would, in effect, be to overlook the fact that "knowledge" and the "acts" of knowing are never totally exclusive of each other. The latter always leads to the former. There are, nevertheless, some distinctions to be between them. Instead of positing these cognitive distinctions as permanent or absolutely fixed, Dewey indicates that they are essentially functional and logical in character. In brief, he insists that the distinctions between "empirical" and "rational" subject-matter, or between esthetic and operational qualities of cognitive objects are particularly made for the sake of understanding what these objects mean in relation to other objects within the same context.

It might be observed here that some traditional philosophers really recognized the facts of dependencies and continuities between existent objects and natural events, or between "stability" and "change" in general. Aristotle, for instance, indicated that "actuality" and "potentiality" are embodied in all beings, except the prime matter. In his metaphysics, he described "matter" as that which admits and embodies immaterial forms. And in criticizing Plato's theory of forms, he accordingly held that the "validity of scientific knowledge does not require that ideas [immaterial forms]

exist apart from phenomena itself."¹ By fixing "the ranks of necessity and contingency" in his physics however, Aristotle went quite contrary to the idea of "connectedness" and "continuity" which he found between "matter" and immaterial forms. In fact, he fixed his categories in "such a way that necessity measures dignity [stability] and equals degree of reality, while contingency and change measure the degree of deficiency of Being."²

Dewey sees the categorization of "Being" into "substance" and "accidents" as an attempt by Aristotle to evade the impact of the mixture of "stability" and "change" in his epistemology.³ He asserts that, by emulating the Aristotelian classificatory scheme, many modern philosophers equally fall into the "philosophic fallacy of the true Being."⁴ These modern philosophers were, in fact, able to recognize the significance of "change" as well as the indispensable relevance

¹Paul Edwards, ed., Encyclopedia of Philosophy, 8 vols., 1972, s.v. "Aristotle," By G.B. Kerferd.

²Dewey, Experience and Nature, p. 48.

³Dewey seems to be pointing at some elements of inconsistency which appear in Aristotle's conception and application of "continuity." In an essay entitled "The Greek Commentators' treatment of Aristotle's Theory of the Continuous," David J. Furly similarly observed that "there is a certain ambiguity in Aristotle's language about the continuous." For, "In the Categories, Aristotle infers the continuity of place from the continuity of parts of a body occupying the place.... But in the Physics, he will not allow that the parts of a body have a place of their own." Norman Kretzmann, ed., Infinity and Continuity in Ancient and Medieval Thought, (London: Cornell University Press, 1982), pp. 19-20.

⁴Dewey, Experience and Nature, p. 52 & 56.

of knowledge in our life and natural situations. Hence, they replaced "chance" occurrences with the idea of "universal and necessary laws". However, by assuming that these "universals and necessary laws" are ultimate ends in themselves, modern philosophers tend, on the other hand, to misapply these laws "as devices for blurring the disagreeable recognition of facts instead of altering the facts themselves."¹ For Dewey, this fault is particularly evinced in the rationalists' and modern idealists' epistemologies: Descartes, for instance, recognized the inadequacies of the traditional conception of experience. Yet, he conceived and treated "abstract objects" and universals as eternal ends which are exclusive of any thing that is empirical. In other words, he held that,

[the] physical [empirical] world can be surrendered to matter and mechanism... [because]... we are assured... [by our intuition or reason]... that matter and mechanism have their foundation in immaterial mind.²

Again, by positing a sharp distinction between a priori and a posteriori categories, or between the operations of the senses and the intellect, Kant seemed to support the idea that true knowledge is a "spiritualistic ideal" tenable and secure only "on rational a priori grounds."³ Like Descartes, he was "forced in the end to explain how a purely formal 'reason' consisting entirely of abstract universals could enter into

¹Ibid., p. 45.

²Dewey, Quest for Certainty, p. 42.

³Ibid., p. 58.

relation with an 'empirical' domain of atomic data."¹

In view of the above criticism, it might be observed that Descartes completely failed to find any significant connections between "empirical" and "rational" subject-matter, or operations and methods of knowing. Unlike Descartes' system,

...the very neatness with which...Kant's two realms fitted each other...[suggests]...a single underlying and unifying principle. And Kant himself in various writings had suggested...considerations which soften the sharpness of their separation from each other.²

It has to be emphasized that what is most particularly being challenged by Dewey, in this case, is such an assumption, "accepted as obvious by Descartes and Hume, that man cannot possibly be wrong about the character of his subjective experience."³

Like Descartes who used the "inner self" as the ultimate measure for both "reality" and certain knowledge, David Hume used subjective sense impressions as the foundation and the irreducible measure for our general ideas and knowledge. Simple ideas, for him, generally derive from simple sense impressions. Although these simple ideas could cumulate to form complex ideas, or even more complex "bundles" of ideas which we often designate as the "inner self" or "mind", Hume held that all ideas are, in cases of doubts, reducible to the

¹John E. Smith, Purpose and Thought, p. 88.

²Dewey, Quest for Certainty, pp. 61-62.

³Bruce Aune, Rationalism, Empiricism and Pragmatism: An Introduction, (New York: Random House, 1970), p. 84.

initial sense impressions from which they derive.¹ It appears, in his view, that subjective sense impressions and simple ideas are "atomic", disjointed and quite distinct existences. The conjunctive activities and relations involving more extensive contexts, or situations in which the individual items (subject and objects) of experience exist, seem to have been overlooked by Hume. In brief, he failed to see, first, that "experience" designates more complex episodes than atomic sense impressions and ideas; second, that "conjunctive" relations are as much a part and parcel of experience, and that they should be therefore placed on equal footing with the distinct or seemingly atomic items.²

It is Dewey's contention that, by placing partial emphasis on subjective traits and our "imaginative perception of the stably good", dualistic philosophers like Descartes and Hume avoided the disagreeable facts of our "spacious existence, which...alone involves us in the necessity of choice and active struggle."³ As opposed to this partial emphasis therefore, Dewey indicates that just as the human mind is never found without the body, so also, our subjective operations are never found to be outside the realm of objective

¹David Hume, "An Inquiry Concerning Human Understanding," In The English Philosophers: From Bacon to Mill, Edited with an Introduction By Edwin A. Burtt, (New York: Modern Library, 1967), pp. 594-597, 622-630.

²Smith, Purpose and Thought, pp. 89-91.

³Dewey, Experience and Nature, p. 53.

experience:

The universe of experience always surrounds and regulates the universe of discourse [reflective operations or cognition] but never appears as such within the later.¹

It appears, in other words, that although there are some elements of distinctness between having knowledge and knowing, or between "rational" and "empirical" operations, these sections of our life and cognition could not be placed in watertight compartments. To do this would be to deny the two-way transactional character of our precognitive and cognitive processes. And this denial might, on the other hand, entail a denial of the human capacity to discriminate this object or this situation from that other one.

The fact, for Dewey, is that there is always a contrasting context - an inclusive problematic situation in which individual objects are linked and related before meanings are ascribed to them. Without such contrasting contexts, there appears to be no way of determining relevances and relational meanings or, even, of distinguishing between one object and another. In view of this epistemological importance which Dewey attaches to his idea of "problematic situations," it appears that all our knowledge and reflective operations might be as "contextualistic and situation dictated as any other human activity."² One might, on this note, rightly

¹Dewey, Logic, p. 68.

²John McDermott, "Dewey's Logic," Transactions of Charles S. Peirce Society: A Quarterly Journal of American Philosophy 6.1, (Winter 1970): 33.

raise an objection: If all our knowledge and knowing activities are contextual and situation-dictated, how does one explain the unconditional character of universal principles, or logical and mathematical forms? To take "problematic situations" as the regulative conditions for all our knowing activities would seem to imply that, for the ensuing knowledge to be valid, such knowledge must bear references to particular human enterprises, skills, dispositions, interests, and so on. Since universal principles and mathematical forms are apparently unrestricted and seemingly derived independent of particularistic situations, it seems difficult to accept this epistemic relevance which Dewey attaches to his idea of the problematic situation as wholly plausible. A closer analysis of the phases of reflective inquiry and the instrumental character he attaches to universal principles and logical forms might clearly reveal whether these doubts which Dewey seems to raise concerning the validity of universals are plausible or not. Before engaging in this analysis, however it is important to emphasize here that the differences and distinctions which Dewey recognizes between universals and particular situational objects are only those of "office and function, of phase and rhythm."¹

¹Geiger, Dewey in Perspective, p. 33.

Chapter IV

REFLECTIVE INQUIRY AND THE PROCESS OF KNOWING

The main reason advanced by Dewey for his disparagement and rejection of the modern epistemological dualistic methods is that such methods undermine the complementary and continuous "double movement" which "seems to be the way nature herself works." In his view, "stability" and "change" are characters of the same qualitative situation. And, for any cognitive account of situational objects to be regarded as valid, these double characters have to be given equal and due considerations.

If we view a situation as biocentric and human, as Dewey indicates, situational objects would appear not only to have double character but to be involved in continuous double movements between the physical and mental, practical and theoretical, technical and moral activities, and so on. Because the ascription of these double characters to single objects or events, taken in isolation from interactive situations or contrasting contexts, seems to be quite unintelligible, Dewey indicates that "it is the situation therefore which invokes and regulates inquiry."¹ Here, one might ask: What is inquiry? And, if it is about individual objects within an interactive natural situation which is qualitatively

¹Joseph Ratner, "Dewey's Conception of Philosophy," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, p. 73.

problematic, how can it be stimulated and regulated by the same situation? This latter question involves the issues of self-sufficiency, self-evidence and self-assertibility-not only of inclusive situations and universal principles; but especially those of individual methods by which we inquire and acquire knowledge.

We will, in this chapter, explore some of these methods of inquiry. And this will be done not just with the aim of understanding their structure and uses; but particularly, with the objective of finding and critically appraising the connections which Dewey posits between them, or between the subject-matter and phases of our knowing processes in general. Toward these aims, we can surely indicate that the idea of inquiry ordinarily designates an on-going investigation or "search" for something - namely, distinct answers or solutions to some existent problems.

Dewey actually uses the term "inquiry" to designate our search and constant efforts to improve and maintain both control and working harmony of our qualitative situations. According to him:

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.¹

Taking inquiry as an enterprise that is peculiar to human organisms, he explained that "the sole way in which a 'normal

¹Dewey, Logic, pp. 104-105.

person' figures is that such a person investigates only in the actual presence of a problem."¹ However, it might be observed from the above definition that Dewey has equally overlooked and assumed certain things about the "situation." First, he tends to overlook the implicit limits and the often restricted meaning and use attached to the term "situation." "A situation", it seems, might refer to strictly logical, psychological, subjective, objective, public or relatively personal conditions. Second, he assumes that human organisms and their characteristic traits are included as integral parts of differing situations: Men simply share in situational problems, not vice-versa. In the light of this assumption, Dewey himself asserts that, "Doubt can...be legitimately imputed to the organism only in a secondary manner."²

The fact is that, by attributing peculiar human traits like "doubts" to an entire situation, Dewey intends to show that, in as much as situational problems are epistemic, mind and body are functionally involved in inquiry toward the resolution of such problems. Given a more extensive interpretation, his ascription of functional links to mind-body operations might be construed to designate constant "to and fro" movements between the objective and subjective, or between the physical, perceptual and intellectual forms of

¹John Dewey, "Propositions, Warranted Assertibility, and Truth," In Dewey and His Critics: Essays From the Journal of Philosophy, Selected With Introduction By Sidney Morgenbesser, (Journal of Philosophy Inc., New York: 1977), p. 280.

²Ibid., p. 279.

human activities. This mix-up of mental and extra-mental operations involves some form of circularity. This circularity appears apparent in Dewey's conception and distinction of the different phases of inquiry: In his definition of inquiry, for instance, he implies that systematic control and "directed transformation" of an original indeterminate situation into a determinate whole do not represent an absolute guarantee that the same situational problems might not recur. Because this type of circularity which appears in Dewey's definition of inquiry renders the definition itself vague, it might be rightly described in the traditional philosophic sense as ambiguous and unsatisfactory.

While we regard Dewey's definition of inquiry as vague, it is really premature to condemn his general conception of inquiry as unsatisfactory. This is because common-sense experience itself indicates the fact that, in the presence of situational problems, human organisms often hesitate: We consciously delay certain familiar reactions and habits in order to make closer observations, or to reflect and judge before adopting new outlooks and bearings toward the resolution of our situational problems. Dewey himself seems to be following this line of thought by insisting that, instead of being mere passive spectators, human "consciousness", "mind" and "body" are always actively involved in all the cognitive operations. Irrespective of whether such operations are purely intellectual or merely practical and empirical endeavors, they always involve conscious

observations and thoughts.

Before commencing the detailed appraisal of the procedural phases of inquiry, it is important to emphasize that it is Dewey's concept and ascription of functional continuity to things which mark his point of departure from the dualistic philosophers' points of view. Like Peirce and William James before him, Dewey found the fundamental mistakes of rationalists' and traditional empiricists' dualistic systems in their relative neglects of pervasive continuities and connections between our material and intellectual, or perceptual and conceptual activities. This neglect has, in the pragmatists' view, misled many philosophers like Descartes and his contemporaries into the "assumption that relevant principles of interpretation are necessarily true and are not subject to revision in the light of further investigations."¹

Opposition to this basic assumption of dualistic epistemological systems is explained on the ground that "relevant principles" and universals cannot be what they are taken to be except, in the words of William James, if they "work"; that is, if they are operative or productive in directing other activities aimed at actual resolution of situational problems. Dewey himself acknowledges that formal principles could be "free from connection with any particular subject-matter;" but, he also insists that the validity of these principles is largely "determined by the coherency of

¹Aune, Rationalism, Empiricism and Pragmatism, p. 149.

the consequences produced by the habits they articulate."¹ By this, he implies that the background assumption of dualistic epistemology is not only vulnerable to criticisms, but is unwarranted simply because the dualists failed to take into account the fact that formal principles are "forms" of functional relations of materials that have been subjected to continuous inquiries. Since both "subject-matter" and the contrasting contexts which these principles articulate are never absolutely determinate or completely indeterminate in Dewey's view, it appears that relational principles themselves might be subject to some degree of adjustment in the course of further inquiries.

In the attempt to prove this latter point, Dewey indicates that there is always a general matrix of inquiry in which primary inquiry could be distinguished from "inquiry into inquiry": While "inquiry into inquiry is the causa cognoscendi of logical forms [and principles], primary inquiry is itself causa essendi of the forms which inquiry into inquiry discloses."² Logical forms and principles, in this case, could only be proven as valid or warranted forms of knowledge, if and only if, they are shown to be efficacious in systematizing the course of primary inquiry or, on the other hand, if they are publicly-verifiable within the matrix of inquiry. In fact, Dewey appeals to the evidences

¹Dewey, Logic, p. 13.

²Ibid., p. 4.

of our common-sense experience and the experimental procedures of the natural sciences in order to clarify his general conception of inquiry.

The evidence of our common-sense experience, in his view, shows that the application of effective principles to actual problematic situations often brings such situations back to harmony. "Problems" and "principles", in this case, might be seen as contrasting complements; that is because, they explain, verify or check and actively block each other's presence.¹ From this, it follows that certain changes in the familiar features of our more common problems might, in fact, lead to some modifications in the structure of regular principles often used to resolve them. For instance, if it is observed that all A's constantly migrate from north to the south in winter, the fact of this general migration might be rightly asserted as a valid principle. However, if it is subsequently discovered that, due to structural changes in their resistance mechanisms or environment, some A's chose to hibernate in the north rather than migrate, then the original principle might have to be modified in order to accommodate the facts of the inevitable changes. The latter principle might state that only some instead of all A's really migrate from north to the south in winter. This modification, as it seems, indicates that there are close links

¹This is simply explained by the fact that wherever problems exist, such problems are often resolved once relevant principles are discovered and purposely applied toward the termination of the problems.

between the causal and the logical or epistemic aspects of the human life,

In raising the problems of induction, Hume rightly indicated the close connections between the operations of natural causes and the logical operations of the human reason. He was, as a matter² of fact, quite sceptical about the relations of natural causes. Although he posited such relations as quite distinct from the "relations of ideas," he nevertheless asserted that human "belief is more properly an act of the sensitive than the cognitive parts of nature;" and "reason" is, more or less, always "the slave of the passions."¹ In the light of these connections which he found between our instinctive habits and beliefs or between causal inference, expectations and rational operations in general, Hume really came close to the conclusion that no aspect of the human life and logic is completely immune from change. This is particularly evinced in the fact that, for him,

...all our knowledge resolves itself [with the lapse of time] into probability, and becomes at least the same nature with that evidence which we employ in common life.²

Hume, in Dewey's view, simply fell-short of acknowledging the revisable characters of causal principles and logical forms. Dewey attributes this failure to the fact that Hume did not realize "that explicit formulation of an expectation

¹David Hume, A Treatise of Human Nature, 2nd Edition, Revised By P.H. Nidditch, (Oxford: Clarendon Press, 1978), pp. 183 & 462.

²Ibid., p. 181.

renders it capable of being checked and tested by consequences;" and most significantly, that "such formulation transfers expectation from the field of existential causation to the logical realm;" that is, as, "potential logical generality" or principle.¹ In view of this failure, Dewey implies that Hume's epistemological doctrine is unsatisfactory.

One might object that to ascribe revisable characters to general principles and logical forms, as Dewey tends to do, is to confuse and blur the apparent differences between causal generalizations which have direct existential bearings and non-existential logical forms and principles which are determined on the grounds of systematic and strict relations of ideas. Hume, it seems, avoided this type of confusion by keeping causal operations and relations or commonsensical subject-matter and methods apart from pure rational operations or logical subject-matter and relations. It is observed, however, that Dewey himself anticipated this objection:² He indicates that the outcomes of reflective analysis

¹Dewey, Logic, pp. 251-252.

²Dewey acknowledges that common-sense, with respect to its methods, ideas and beliefs, is concerned with qualitative subject-matter and operations while logical and scientific inquiries are concerned with relations and conceptions which are abstract and non-qualitative; that is because the qualitative aspects of their subject-matter are often eliminated from general considerations. He, nevertheless, contends that the distinction he makes in this case is not epistemological or ontological. Rather, it is a logical distinction "of the relation to each other of different kinds of problems" which demand different kinds of "emphasis in inquiry." See Logic, pp. 64-66.

and synthesis, as they appear in the experimental procedures of the natural sciences, do not lay any claims to absolute independence from one another, or from the complex situation in which inquiry is conducted. Rather, these outcomes are integrated within the phases of experimental inquiry as methodic or ideational structures which are instrumental in directing further operations within the matrix of the experimental inquiry.

The Phases of Experimental Inquiry:

There are several stages within the pattern of experimental inquiry as it is applied in the natural sciences.¹ These stages, as Dewey claims, often overlap or precede each other in series, series which eventually constitute every complete circle or system of the process of scientific inquiry: First phase is that of preliminary observations. It includes the isolation or specification of problems, the collection of data or more evidences to constitute the initial "facts of the case". Second phase is that of reasoning or conceptual operations of thought. This includes the systematic use of ideas as instruments (or symbols corresponding to the actual problems at hand) in "thought experiments" or reflective analysis and synthesis so as to derive new logical forms and working principles which might apply in the final resolution of the actual problem. Third phase is that of

¹In his Logic, pp. 105-117, Dewey outlines five distinct phases within the pattern of inquiry. For the sake of brevity here, we will treat the stages of inquiry under three sub-headings.

actual experiments or integration of the outcomes of the first and second phases. It is the application of the results of reflective operations as directional "means" in order to control the course of more extraneous activities aimed at full resolution of the problems specified through initial observations. Dewey's outline of the pattern of inquiry has two-fold purposes. On the one hand, it indicates that the operations of thought and the ideational forms from such operations are intermediate within the matrix of inquiry. On the other hand, Dewey intends to show that due to the connected and continuous series of the phases of experimental inquiry, the method itself is self-corrective. The systematic results derived from one phase could be progressively applied to improve and enhance another phase within the same matrix of scientific inquiry. This is contrary to what obtains in the rationalist and traditional empiricists systems where the outcomes of the phases of inquiry are regarded as dormant or atomic entities.

Preliminary Observations and Consciousness:

The main goal of the every scientific inquiry is, in Dewey's words, to ascertain the "conjunctions of characteristic traits which descriptively determine kinds in relation to one another and the interrelations of characters which constitute abstract conceptions of wide applicability."¹ The first stage towards this goal often begins when the

¹Dewey, Logic, p. 419.

inquirer's attention and investigative interest are drawn to some situational problems. Preliminary observations are made, not only to isolate specific problems, but also to gather more evidential data to constitute the initial facts of the case.

It might be emphasized that human consciousness is an indispensable instrument in all preliminary cognitive observations. Without the awareness of immediate impacts of situational occurrences, and without conscious recollections of our past experiences, we may, apparently, not be able to "adjudge a situation as settled or unsettled," determinate or precarious. In conjunction with our common-sense impressions, however, consciousness enables us to perceive and grasp the meanings of objects and situational events. In Dewey's words, consciousness "is the perception of actual events, the having of actual ideas."¹ Moreover, he implies that while consciousness delimits our "focal" and initial observational fields, it particularly serves as a medium through which messages are transmitted from the outer to the inner realms, and vice-versa.

Although he acknowledges the essential role of human consciousness in setting both the initial stage and the course of inquiry, Dewey opposes the dualistic epistemological views which indicate that "consciousness" is the ultimate background and source of all our knowledge and knowing

¹Dewey, Experience and Nature, p. 303.

activities: To accept such views would be to overlook the indispensable influences of both concrete situational objects and objective activities on what we know, and "how" we acquire knowledge. For him, "consciousness" designates the "ideas of the moment"; and as such, it might not be appropriately restricted to the initial stages of inquiry. This is because perceptual awareness or "ideas of the moment" might, quite indifferently, denote "emotion, sensation, thought, desire, and so on."¹ The "focal" and "transitive" characters of initial conscious observations generally enable us to locate, isolate and understand what the actual situational problems are. In specifying these problems, we also determine and specify the direction which the ensuing inquiry should take. Further observations could, however, become necessary in the course of inquiry. These secondary observations often go hand-in-hand with the operations of thought in order to uncover the full meanings of the problems and the evidential data designating the initial facts of the case. According to Dewey:

The more the facts of the case come to light in consequence of being subjected to observation, the clearer and more pertinent become the conceptions of the way the problem constituted by these facts is to be dealt with. On the other side, the clearer the idea, the more definite, as a truism, become the operation and execution that must be performed in order to resolve the situation.²

¹Ibid., p. 305.

²Dewey, Logic, p. 109.

Dewey actually implies that, in setting the problems and directions of inquiry, we equally determine whether the course of inquiry is existential or non-existential, empirical or purely rational. For him, preliminary observations appear generally to anticipate the second phase of inquiry which includes more profound systematic operations of reflective analysis and synthesis.

Reflective Analysis and Synthesis:

The isolation of particular problems is, doubtlessly, necessary for any form of inquiry to proceed. This initial operation would, on the other hand, be meaningless if it fails to turn out some clues which might lead to suggestions or possible solutions for the problems. Here, the specifications of relevant facts which surround and serve as evidence to explain the isolated problems are generally designated as reflective analysis. And the exploration of the possibilities for solutions of these problems through thought and further observations, is designated as reflective synthesis. It is assumed, in this case, that every form of reflective analysis and synthesis involves some elements of discriminative judgement or selectivity and purposive thoughts. The plausibility of this assumption is evinced in the fact that no "experience having a meaning is possible without some thought."¹

¹John J. MacDermott, ed., *The Philosophy of John Dewey* Vol. 2., (New York: Putnam's Sons, 1973), p. 501.

In view of the fact that analysis and synthesis always involve "thought", designating the operations of the mind, it might be stressed here that, unlike "consciousness" which denotes transient "ideas of the moment," Dewey claims that the mind is "persistent", "substantial" and "contextual":

Mind denotes the whole system of meanings as they are embodied in the workings of organic life;...perceptive consciousness is a process, a series of heres and nows.¹

Added to this, he emphasizes that although the functionings of our consciousness and "mind" are, respectively, disjointed and systematically continuous, there is "a continuum, or spectrum between this system [mind] and the meanings which, being focal and urgent, are the ideas of the moment."²

This continuum appears evident in the fact that "ideas of the moment" often stimulate "thought"; and thought, wherever and in whatever way it occurs, always bears references to the already existent system of meanings.

Some questions might arise here with regard to the "ways" or methods of "thought": Are there several ways or only one method of thought? If there are several methods, then how are these to be characterized and distinguished from each other? In answer to these questions, it is important to note that many philosophers posit "induction" and "deduction" as apparent and distinct methods of thought. While Dewey equally acknowledges the distinctness of these methods, he insists that both methods of thought involve

¹Dewey, Experience and Nature, p. 303.

²Ibid., p. 305.

"selective emphasis" or "discernment of relation between what we try to do and what happens in consequence."¹ In reflective analysis, we often eliminate factual items and qualities which appear to be irrelevant to a case while the more relevant facts are amassed, screened and attached with explicit descriptive meanings. Using these familiar facts either as assured or assumed background for further thoughts, we, on the other hand, often engage in deliberate alterations of the supportive conditions and factual items surrounding an immediate problem. In this latter exercise designating reflective synthesis, new ideas are suggested, screened and integrated with old ones in order to derive new logical forms. For Dewey, both induction and deduction are procedures involved in our reflective analysis and synthesis or "experimental inquiry" in general. In fact, he states that,

...experimental inquiry or thinking signifies directed activity, doing something which deliberately varies the condition under which objects are observed and directly had and by instituting new arrangements among them.²

The above description of "thought" is particularly intended, by Dewey, to disparage the dualist's conception of thought. For, as a matter of fact, the doctrinal cleavages between the rationalists and the traditional empiricists did not prevent their general consensus or recognition of absolute differences between the inductive and deductive methods,

¹McDermott, ed., The Philosophy of John Dewey, p. 499.

²Dewey, Quest for Certainty, p. 123.



or between a priori and a posteriori forms of thought. Induction and deduction are, for instance, described, by these philosophers, as methods by which we infer or reason "from particulars to the general," and reversibly, from "general and universals" to particular aspects of relational meanings. Similar distinctions made, by modern dualist, between a priori and a posteriori forms of thought generally imply clear-cut divisions and complete isolation of causally contingent objects and perceptual forms from logically demonstrative and conceptual structures derived through thought.¹ For Dewey, the main issue to be considered is not how to distinguish; rather, it is how to reconcile and render these methods as well as the forms derived from our cognitive analysis and synthesis both continuous and more meaningful.

Connections Between the Methods of Reflective Analysis and Synthesis

In criticizing the dualists' separation of inductive and deductive methods, Dewey claims that any sharp division made between these methods might constitute an obstacle to our understanding and to the progress of cognitive inquiry in general: "Since "thought", taken as a peculiar operation of the human mind, always bears references to already

¹The need for clarity and imposition of considerable limit to the length of this exposition might not permit an elaborate analysis of a priori and a posteriori forms, or of the traditional conceptions of inductive and deductive methods here. A brief examination of the latter might, however, suffice to expose the connections between these methods of our reflective analysis and synthesis.

existent system of meanings, it would be preposterous to ascribe complete independence to the two methods or forms of thought. Contrary to the dualists' tendency towards absolute divisions therefore, Dewey contends that both inductive and deductive methods involve some elements of inferential judgements or systematic contrasts and comparisons. In considering some immediate or pressing problems, old ideas from the existent system of meanings are often selected, matched and integrated with each other so as to clarify and explain the ideas of the moment. New ideational structures or constructs designating purposeful ends-in-view are, in a similar manner, derived and applied in order to resolve the pressing problems. This procedure seems to apply irrespective of whether the problems are physical, moral, purely conceptual or perceptual.

The fact is that the dualistic philosophers' conceptions of induction and deduction are quite inadequate. For, taken in contrast with modern and contemporary scientific conceptions and practice, a clear-cut separation of the two methods of thought appears to be obnoxious and unacceptable. Scientific conceptions and practices, Dewey claims, clearly show that inductive and deductive methods cannot be actually cut into definite lengths, widths or breadths, and then tied up again into syllogistic forms, or premises with straightforward movements from particulars to universals and vice-versa. The inadequacy of such syllogistic dichotomies is particularly shown and disapproved in mathematical discourse.

According to Dewey:

Mathematical discourse is now the outstanding exemplar of deductive method; but (1) no mathematician would regard it as logically important to reduce a chain of mathematical propositions to syllogistic form... (2) such deductions do not necessarily proceed from the more general to the less general even with respect to conceptions; while (3)...it is impossible to proceed directly from a universal proposition to one about an existential particular or singular.¹

While Dewey does not deny that there are possibilities of deducing particulars from mathematical forms and universals, he insists that such deductions, as they appear in the experimental sciences, are understood and explained only "on the grounds of continuity of inquiry."²

"Continuity of inquiry," as it is exemplified in the processes of the physical sciences, actually demands that logical and functional distinctions be made between inductive and deductive procedures. But it also demands that "induction and deduction must be so interpreted that they will be seen to be cooperative phases of the same ultimate operation."³ The fulfilment of these demands really opens the possibility for both logical and existential forms to be derived from the same ultimate operation of inquiry. Existence of such possibilities is not just derived arbitrarily. It appears apparent in the fact that,

¹Dewey, Logic, pp. 421-422.

²Hans Reichenbach, "Dewey's Theory of Science," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, p. 188.

³Dewey, Logic, p. 427.

...[a]...law in mathematical physics is universal in as far as its mathematical content enables deduction to other propositions in discourse to be made. As a law of physics, its content is existential and contingent.¹

If this assertion is accepted as plausible, it might conclusively follow that there are no absolute lines of demarcation between the inductive and deductive procedures.

In view of the protean nature of observational data used in the "ultimate operations" of scientific inquiry, and the fact that such inquiries proceed by integrating perceptual and conceptual form or inner and outer activities, induction and deduction might be asserted as complementary procedures within the matrix of inquiry. "Induction", as it seems, denotes "experimental determination of identities and differences" of relations of observed materials involved in inquiry: Since the results of scientific analysis often cumulate, an inquiry could, through inductive inferences or reflective contrasts and comparisons, establish certain general patterns of agreements and disagreements between the descriptive relations of objects involved in the inquiry. These general patterns, Dewey claims, appear in two forms:

There are those which institute a relation of including and included kinds, and there are those which institute universal 'if-then' propositions as hypothesis and theories.²

¹Ibid., p. 355.

²Ibid., pp. 426-427.

That we can infer from sample cases of a particular kind of data to general conclusions about the kind is undoubtedly evinced in the practices of the contemporary physical sciences. It might be, nevertheless, emphasized that a complete organization of data always requires "a corresponding system of interrelated conceptions capable of exclusive and inclusive (exhaustive) application."¹ It is such systems which actually enhance purposive discourse and render inquiry itself systematic. Where purposive inquiry is, however, conducted through discourse, or in thought alone, scientists often regard the theoretical generalizations ensuing from such ideational operations as "hypothetical". Judgments leading to this latter kind of generalizations are commonly instituted in the forms of "universal if-then" propositions. Following Dewey, in this case, it appears that both inductive and deductive procedures overlap and interrelate with each other within the framework of purposeful thoughts, thoughts aimed at formulation of general hypotheses or theories.

It might be objected here that unlike inductive propositions, deductive conclusions are often conceptual or non-existential. Once one of the premises leading to such conclusions is disproved or denied, the conclusion itself might be contradicted. This shows that certain deductive conclusions might be derived without any references

¹Ibid., p. 483.

to existential data. To this objection, however, Dewey might contend that although some conceptual generalizations do not bear direct references to particular existential objects, they often lead to other propositions which bear direct references to existential kinds and individuals:

There is a continued to and fro movement between the set of existential propositions about data and the non-existential propositions about related conceptions.¹

And because these "to and fro" movements designating inductive and deductive procedures were misconstrued by the dualistic philosophers as straight-forward processes, they completely isolated the one procedure from the other.

As against any sharp separation of the methodic procedures of inquiry, Dewey also emphasizes that the "conjugate relation of the inductive and deductive is exemplified in correlative nature of inference and proof, where 'proof' means ostensive demonstration."² The constant evidence of our everyday experience actually shows that while it "takes two actions to make one interaction," the consequences of such interactions are often new actions.³ In asserting the connectedness of inductive and deductive procedures, Dewey seems to have followed this line of thought. For, taken as procedural phases which designate the occasional directions of our reflective analysis and

¹Ibid., p. 427.

²Ibid., p. 428.

³Joseph Ratner, Intelligence in the Modern World, p.150.

synthesis, both induction and deduction would appear, not as parallel, but as opposing and continuous procedures which conjugate with each other to form the matrix of experimental inquiry.

It is a truism to note that, depending on whether the functions of the subject-matter of inquiry are existential or conceptual, the direction of inquiry itself might be predominantly inductive or deductive. Irrespective of the opposing directions of these methodic procedures, however, every mode and phase of inquiry similarly demands scrupulous care in selection, notation and evaluation of data. Sagacious suggestions aimed at developing new principles, shaping new logical forms or predicting actual conclusions generally evince the indispensable role of "thought" in every aspect of inquiry. In fact, Dewey claims that the mind constantly applies similar logical conditions in discourse toward the formulation of existential and non-existential propositions or generalizations: "The order of propositions," in each instance, "must be rigorous and productive - a proposition in which 'and' has other than enumerative force."¹ If this is acknowledged as the case, then it might be plausible to admit also that occasional experiments are required not only to test the relevances of data, but especially, to verify the evidential worth of interrelated conceptions derived through the opposing procedures of our reflective analysis and synthesis.

¹Dewey, Logic, pp. 314 & 484.

Before exploring the general implications of Dewey's notion of "experiments" or of the experimental phase of inquiry, it is important to highlight two main objections raised against his emphasis on the connections between the methodic procedures of our reflective analysis and synthesis. First, by tying inductive and deductive procedures together as mediated and mediating in each other's operations, Dewey tends to blur the essential differences between these methodic procedures. He implies that while these procedures are logically and functionally distinctive, they are actually directional phases of the same ultimate method - the experimental method of cognitive inquiry. For him, this complex method appears to be the only method through which we can acquire valid knowledge. To accept this lone method which integrates the procedures or matters of common-sense with those of the intellect or thought alone might, in effect, confuse the fundamental differences which philosophy makes between antecedents and consequent objects of knowing and knowledge. Dewey tends to insist that distinctions between subject-matters or various methods used in speculative philosophy, mathematics, logic, psychology, biology and so on, are never ontological. This position is, however, unacceptable. For, to overlook or completely annul ontological differences would equally involve a denial of "matter of fact" evidences of common-sense which indicate that actual objects, and events involving these objects, might be quite distinct from each other.

Against this first objection, Dewey would obviously contend that specific distinctions between methodic procedures, antecedents and consequences or subject-matter of philosophy, mathematics, and all other sciences are essentially epistemic. Since epistemic distinctions are particularly made in order to enhance our understanding, he claims that such distinctions are logical and functional, rather than ontological. For him, while appropriate epistemic distinctions show that antecedent objects are only parts of the data for cognitive inquiry, the partially determinate objects of knowledge are seen to emerge at the close of inquiry: They emerge as reconstructed consequences of the systematic operations of inquiry which include methodic thoughts as well as physical activities.¹ Dewey actually intends this to emphasize that "data" as well as methodic operations and ideational conclusions of thought are

¹It is observed in Part One that "reflective experience, for Dewey, denotes both "methods" and "ideational means" through which we appreciate, reconstruct or restructure and acquire knowledge of what "is" within the primary experience. Links between primary and reflective experience might be seen, in the present case, as designating circular and dynamic connections between antecedents and consequences of knowing and knowledge. This line of thought which Dewey tends to follow actually seems to be in line with the phenomenologists', like Merleau-Ponty's conception of experience, nature and knowledge. See Paul Tibbetts, "John Dewey and Contemporary Phenomenology on Experience and the Subject-Object Relation," Philosophy Today 15.4 (1971): 267-271.

intermediary within the complex operations of inquiry and cognition. In doing this, however, he overlooked the need to specify or clearly "distinguish the proposition that inquiry produces knowledge of an object from the proposition that inquiry produces [reconstructs] the objects of knowledge.¹ This lack of clear-cut distinctions in Dewey's conception of various methods or subject-matter of inquiry is apparently misleading. In the words of Donald A. Piatt, it appears from all indications that,

...[the]...object to be known certainly does not undergo reconstruction: the bush or a star is not made by inquiry. ...Data as fragmentary and problematic...[might, nonetheless, be accepted as indications of the fact]... that as yet we don't have an object, our problem is to find one.²

Secondly, even if we accept that methodic operations and ideational structures of thought are intermediary within the complex operations of inquiry and cognition, there appears to remain, as Ernest Nagel observed, some puzzles in Dewey's obscure distinctions of the methodic procedures of our reflective analysis and synthesis.³ These puzzles are particularly aggravated by the fact that while Dewey emphasizes the hypothetical and predictive characters of new logical

¹George Dicker, Dewey's Theory of Knowing, (Philadelphia: Philosophical Monographs, 1976), p. 50.

²Donald A. Piatt, "Dewey's Logical Theory," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, p. 129.

³Ernest Nagel, "Some Leading Principles in Professor Dewey's Logical Theory," In Dewey and His Critics, Edited By S. Morgenbesser, pp. 563-565.

forms, he equally insists that universal propositions about these logical forms "are in themselves neither true or false."¹ This ascription of "protective neutrality" to universal propositions embodying logical forms seems to be, on the other hand, compromised or even destroyed by the fact that Dewey attributes the determination of the meanings of these universal propositions to "their operative use."²

It might be observed that Dewey intends the ascription of "protective neutrality" to universal propositions to expose their distinctiveness from generic propositions which bear direct existential references and imports. By attaching the meanings of these universal propositions to their functional efficacies within the matrix of inquiry, he intends to emphasize the idea of "continuity", or of the social and experimental characters of inquiry and knowing in general. In fact, he states that the function of any universal proposition is to stipulate the "modes of procedures" and "forms" which apply normatively to control generic operations within the continuum of inquiry.³ It appears, however, that this emphasis on "conceptions of the social and experimental character of knowledge that is drawn from the sphere of common-sense may prove highly misleading when applied"

¹Dewey, Logic, p. 157.

²Ibid.

³Ibid.

strictly to speculative disciplines or conceptual levels of knowing and knowledge.¹

Where the idea of "continuity" is used, by Dewey, to express the fact that all forms of knowing and knowledge are based on experience, the plausibility of the idea itself appears to be quite indisputable. For, as Charles Peirce observed, "positive science can only rest on experience;" but, he equally emphasized that "the real character of science is destroyed as soon as it is made an adjunct of conduct."² In view of this latter assertion, some questions would obviously arise against Dewey's emphasis on both social and experimental characters of inquiry or knowing and knowledge in general: First, are his loose and obscure distinctions between varying methodic procedures, or between universal and generic propositional forms not an indirect way of making all kinds of knowing and knowledge dependent on conduct? Second, it appears that, by over-stressing the evidential relevance of the experimental method applied in the physical sciences, Dewey misleadingly tied the validity of all our knowledge to their practical use and functions. Since he might actually contend that this is not the case, one might subsequently ask: how is the experimental method of the physical sciences both adaptable and applicable in the

¹Frederick A. Olafson, "John Dewey's Philosophy of Education," In New Studies in the Philosophy of John Dewey, Edited By Stephen M. Cahn, p. 191.

²Justus Buchler, ed., The Philosophical Writings of Peirce, (New York: Dover Publications Inc., 1955), pp. 47-48.

conceptual realm of mathematics or speculative philosophy? Where a strict application of this method within the conceptual level of experience proves to be relatively impossible, one might conclude that Dewey's insistent emphasis on the "experimental method," as the only method through which we acquire valid knowledge, is misleading and, therefore, unacceptable.

To answer the above objections, Dewey might appeal to the transitive character of our mental and extra-mental activities. He might indicate that the constant cross-references between the two levels of experience equally evince the facts of "continuity", of social connections, or of the experimental characters of all inquiries conducted at both levels of experience. A critical examination of his notion of the experimental phase of inquiry appears necessary here in order to determine the plausibility of this social character which he ascribes to the continuum of inquiry.

The Experimental Phase of Inquiry:

The adoption of radical "characteristics of the experimental science" in all aspects of our knowing enterprise or learning might actually enhance the growth of knowledge and the qualitative enrichment of our values in general. "Experiments" are, as a matter of fact, indispensable in testing and verifying the validity of the findings of reflective inquiries conducted within the fields of contemporary physical sciences. Such experiments are, however, commonly associated with specialized laboratories, equipment and

personnel. Moreover, it appears that "experimentation", as a methodic phase of inquiry, is possible in the natural sciences because of the tangible and publicly accessible properties of objects with which these sciences concern themselves.

Dewey's emphasis on the possible application of the experimental method in all fields of knowing and learning actually constitutes the core of functional connections which he posits between various subject-matter of knowledge and, especially, between the first and second phases of inquiry. Considering the relevant features which make experimentation possible in the natural sciences, this emphasis appears to be both puzzling and obnoxious. Since these special features required in experimental inquiries might not have completely eluded Dewey's notice, it seems necessary to find out how such laboratory procedures and practices might apply in pure theoretical fields where the commonest tools and concerns are ideas and ideational meanings.

Difficulties posed by Dewey's emphasis on the applicability of the experimental method in testing, verifying and enhancing the growth of all forms of knowledge generally derive from the fact that "ideas" which are reflective tools are subjective and, often, relative to individual thinkers. Such difficulties are particularly aggravated by the fact that, unlike tangible objects, ideational meanings generally lack any operative force of their own: They cannot directly effect actual changes that might resolve an indeterminate condition.

These difficulties might, in fact, obstruct the acceptance of the applicability of the experimental method especially in speculative philosophy which includes ethics and moral disciplines. Referring to these difficulties, however, Dewey himself indicates that,

...[even]...science is still taught very largely as separate and isolated subject and that there are still those, including many scientists themselves, who would think that that wonderful thing 'pure' science would be contaminated if it were brought into connection with social practices.¹

From this assertion, it appears that Dewey's conception of the experimental method or phase of inquiry might not be rightly interpreted in the exact sense in which "experiments" are commonly understood in the natural sciences; that is, as specialized laboratory affairs.

Dewey's Conception of Experience as Experimental:

The "experimental method", for Dewey, actually embodies some special attributes - added meanings which make it suitable and applicable in speculative philosophy: "Experiment", in his view, designates a broad social term whose theoretical and practical uses are both naturalistic and abstractly human. He uses the term to indicate, first, that all forms of learning or methods of inquiries are baseless without prior experience; second, that the outcomes of such inquiries might be publicly verified and rendered continuous with and within the totality of experience of "a community of inquirers. In fact, he states that if teachers in social communities and learning

¹John Dewey, Philosophy of Education: Problems of Men, (New Jersey: Littlefield, Adam & Co., 1971). p. 53.

institutions, for instance, fail to posit and explain the connections and continuity between the subject-matter of geography, ecology, physics and mathematics, their students would be "certainly getting very little intelligent understanding of the forces that are making human society and re-make it."¹

It is important to note here that the notion of a "community of inquirers" was originally proposed by Peirce.² Dewey integrates and uses this idea in his own theory not only to stress that the acts of both learning and knowing are both social and experimental in character; but also, that the social aspect of experimental inquiry actually makes such inquiry "self-corrective" and progressive. While he indicates that our ordinary experience should be regarded as a fertile ground for all forms of knowing and knowledge, he, following Peirce's idea of "community of inquirers", distinguishes between common-sense and scientific inquiries:³ Inquiries dealing with "problems of use and enjoyments" might bear direct references to actual situational qualities or symbols and systems of meanings determined by individual cultural groups and limited communities. These inquiries are common-sensical. Scientific inquiries, on the other hand, deal with meanings as meanings systematically organized and related to other meanings. Because "meanings

¹Ibid.

²Justus Buchler, ed., The Philosophical Writings of Peirce, pp. 47-48.

³Dewey, Logic, pp. 114-117.

as meanings", and as the main concern and tool of scientific inquiries, need to be free from sentimental attachments and references to ordinary situational qualities, it follows, in Dewey's view, that new systems of symbol-meanings related together on the basis of "language semantic coherence," are often developed for use in scientific inquiries.¹ The use of such "symbol-meanings" - exemplified in mathematics and logic - facilitates thought and enables scientific inquiry to become rigorously systematic and explanatory, or intellectually productive, innovative and inventive. To the extent to which an inquiry is innovative or reconstructive, Dewey emphasizes that the ideational outcomes of such inquiries need to be returned to the inclusive realm of ordinary experience for actual tests or public discourse and verifications.

One might rightly observe that outcomes of an inquirer's thoughts are, sometimes, not accepted as warranted or valid by other inquirers; that is, until such outcomes are supported with indisputable evidences, evidences in terms of convincing arguments or concrete results derived through tests that are public. If this is acknowledged as a general case, then we might be committed to accept the idea that all cognitive operations have some social under-pinnings. The acceptance of the social character of our cognitive operations would, however, not only imply the plausibility of

¹Ibid., p. 116.

Dewey's emphasis on the need for occasional return and application of outcomes of thought as instrumental "means" and systematic method of control of activities of objects within the ordinary level of experience. It might equally imply the endorsement of Dewey's claim that our conceptual structures and "ideas are worthless except as they pass into actions which rearrange and reconstruct in some way, be it little or large, the world in which we live."¹

Dewey actually intends his emphasis on the social character of cognitive operations and on the need for occasional return of the outcomes of conceptual operations of thought to the ordinary level of experience to show that it is the totality of experience of "a community of inquirers" which is experimental.² According to Sandra Rosenthal, Dewey appeals to science only as "a normative stance" in order to show that "the goal of all thought is 'to enrich the meaning of everyday life-world'."³ For him, it really appears that, just as the validity of scientific theories and practices is found through their corresponding agreements and unions in actual systematic experiments, so also the validity of our reflective conceptions and epistemic theories is found through their corresponding agreements and union with our actual life-experiences. In brief, Dewey sees our

¹Scheffler, Four Pragmatists, p. 202.

²Sandra B. Rosenthal, "John Dewey: From the Phenomenology of Knowledge to Experience As Experimental," Philosophy Today 22.1 (Spring 1978): 44.

³Ibid., p. 43.

everyday experience as the interactive medium where the union of our reflective (intuitive) conceptions and life-practices are experimentally effected in order to enhance the general growth of our knowledge and enrich both the meanings and qualities of our values. In his own words:

The pattern supplied by scientific knowing shows that ...it is possible for experience, in becoming genuinely experimental, to develop its own regulative ideas and standards...The conclusion is a good omen for the possibility of achieving in larger, more humane and liberal fields a similar transformation...without either being false to actual experience or being compelled to explain away the values dearest to the heart of man.¹

The ascription of social and experimental characters to the totality of our experience might, to some extent, be accepted as plausible. However, there appears to be a relevant cognitive factor either overlooked, or misplaced by Dewey, while stressing the need for return and verification of our conceptual structures within the larger framework of ordinary experience. For instance, how could the validity of a priori knowledge depend on the inclusive structure of experience? How could pure mathematics, normative ethics or moral theories derive and fit into such a continuum of experience which, being characteristically experimental, seems to embody operative norms that are mainly probable?

In answering this objection, Dewey might argue that the "independence of all scientific objects", or meanings from the continuum of ordinary experience is "equivalent to

¹Dewey, Quest for Certainty, p. 107.

their general character" or freedom "from restriction to conditions which present themselves at particular times and places."¹ In fact, he asserts that the unconditional character of scientific generalizations and abstract conceptions are often "confused with the doctrine that they have no reference to actual existential occasions."² This should not, however, be regarded as the case. For, as experimental inquiries generally indicate, there are extensive functional connections between all categories of thought, scientific subject-matter or system of meanings. If this is the case, then it would seem plausible to admit that the certainty of a priori knowledge might be derived and asserted within the medium of abstract thought; that is, depending on the logical coherence of the conceptions leading to such knowledge. If it is nevertheless realized that ascriptions of certainty to a priori knowledge often take place within discursive contexts involving the community of inquirers, one would equally concede that "a priori" does not designate the hypostatization of abstract generalizations of thought. Dewey actually claims that we cannot rightly hypostatize "thought" or the abstract generalizations of thought because the functional connections found within the system of meanings equally extend to the less systematic

¹Dewey, Logic, p. 117.

²ibid.

aspects of our life-activities.¹ The abstract generalizations of thought appear to be intermediate and functional within the inclusive continuum of ordinary experience and live-situations.

The acceptance of extensive functional connections between rational and empirical subject-matter by natural scientists really marks the overdue recognition of the same fact in speculative philosophy. Once these functional connections are recognized, then experimental inquiry might be seen as essentially self-corrective: It always aims at reorganization and unification of disconnected objects within indeterminate cognitive contexts or problematic situations. Toward such unification, "thought" and conceptual objects of thought have more of intermediate but, necessarily, directive and leading roles. And, in fact, some of Dewey's contemporaries endorsed this idea of "self-correctiveness" and "union" which experimental inquiries bring about between theories and practices. According to Joseph Ratner:

The progress of physics from Galilio and Newton to ...Einstein is the progress of effecting complete integration of experimental findings and mathematical formulations, by bringing the latter under the control of the former.²

This union indicates that logical autonomy of the subject-matter of mathematics and physics does not, in the least, obstruct the functional connections and continuity between

¹Ibid., pp. 530-531.

²Ratner, Intelligence in the Modern World, pp. 110-111.

mathematical structures and those of physics. Ratner actually explained these functional connections and the self-correctiveness of experimental inquiry in terms of social divisions of labour:

The problems of the theoretician are determined by results obtained in the laboratory and the solutions of the theoretician have to solve these problems.¹

The fact that eventual solutions of actual problems within cognitive contexts and experiential situations in general are often achieved through many trials and errors particularly evinces the self-correctiveness of experimental inquiries.

In view of the social character and the self-correctiveness of experimental inquiries, we might accept the general applicability of the experimental method in all inquiries conducted within the wider field of human life. This is particularly the case since the prospects of application of the experimental method enliven expectations not only of similar cognitive growth and enrichment of meanings as found in the physical sciences, but also of the general enhancement of the qualities of all our empirical values. According to Hans Reichenbach, however, the introduction of the experimental method of inquiry in the natural sciences only show "that scientific theories can never be considered as absolutely true."² The need for the experimental phase of inquiry

¹Ratner, Intelligence in the Modern World, p. 111.

²Hans Reichenbach, "Dewey's Theory of Science," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, pp. 182-184.

arises in the natural sciences because scientific reasonings alone are "hypothetico-deductive." Both the progress of such reasonings and the validity of their outcomes appear, in this case, to depend on their constant references or return and verifications within the continuum of ordinary experience. In other words, while Reichenbach applauds the idea of connectedness and continuity posited, by Dewey, between scientific theories and practices, he rejects the comparative analogy which suggests the applicability of the experimental method especially in moral and ethical realms.

Following Reichenbach, one might rightly object that the successful application of the experimental method in the physical sciences does not show that the same method is equally applicable in moral and ethical disciplines.¹ Since there are, up till now, no such things as "intersubjective properties," it appears that we cannot possibly experiment or engage in public tests and demonstrations with intangible objects and subjective properties which constitute the subject-matter of esthetics, ethics and morals. To posit a comparative analogy between the methods of inquiry applied in physical and ethical realms might, quite misleadingly, confuse and blur the fundamental differences and crucial distinctions which philosophic tradition rightly made between subject-matter which bears references to purely

¹Ibid., pp. 178-181.

subjective or objective aspects of life.¹

In reply to this objection, Dewey might contend that wherever the "execution of existential operations" is directed and controlled by ideas "in which ratiocination terminates"; then the possible application of the experimental method or the functional unions of theories and practices could be achieved.² In fact, he indicates that extensive functional connections between our private and public, inner, outer and social lives are exemplified in the educative process which is continuous throughout one's life. According to him, "education is the outstanding means by which union of knowledge and values that actually work in actual conduct is brought about."³ "Experimentation", as a methodic phase of the educative process, signifies putting a coherent body of ideas to "work" in order to give direction to actual efforts made toward the acquisition of further knowledge or the qualitative enrichment of our situational values and life itself.⁴ Again, "experiments" designate possibilities of discovery of new avenues for continuous revision of our cognitive theories and regulative principles in order to meet the requirements of future challenges and demands imposed by our natural situations or changing

¹Ibid., pp. 181, 190-192.

²Dewey, Logic, p. 118.

³Dewey, Philosophy of Education, p. 165.

⁴Ibid., pp. 137-138.

conditions. Since it is apparent that normative ethical theories and moral practices cannot be completely isolated from social and educative contexts, the plausibility of experimental union of ethical theories and practices might have to be acknowledged.

It has to be stressed, however, that by emphasizing future expectations and consequences of interactions, Dewey tends, quite in an equivocal manner, to mix-up purely subjective and objective or purely rational and commonsensical subject-matter. For him there are actually no fixed boundaries between antecedent "knowledge which directs and controls experiments...[and]...knowledge which emerges from it."¹ One might not, however, deny that prior to actual experiments, an "experimenter always knows something, and in the light of this tries to find out something else."² If this is the case, then it appears that Dewey's unprecedented emphasis on expectations and consequences might, in effect, constitute an erosion of the background or antecedent knowledge which is applied to direct and enhance further growth of our knowledge and values. Possibilities of such erosion might be, nevertheless, removed if commensurate emphasis is placed on antecedent knowledge as sure basis for further cognitive operations and on expectations and consequences as distinct outcomes of these operations.

¹C.I. Lewis, "Review: Quest for Certainty," In Dewey and His Critics, Edited By Sidney Morgenbesser, pp. 257-258.

²Ibid.

Some of Dewey's contemporaries, like C. I. Lewis, actually opposed his partial emphasis on future expectations and consequences. And this is particularly on the ground that answers to such questions as to "How" and "Why" our knowledge, beliefs and cognitive theories are "absolutely" certain or hypothetical and probable might not be simply given in the light of future expectations and consequences alone. Since what is present and past are, in as far as they are relevant to a case, called upon as assured evidences, then we have to acknowledge that the full meanings of future expectations and consequences can only be derived and understood through the extensive functional links and cross-references which they bear to antecedents. In fact, C. I. Lewis asserted that, in addition to such emphasis which modern philosophers placed on what is antecedent or past and present,

...there is needed just that continuity with humanized science, just that learning of connections and consequences of things, and just that experimental method and attitude of mind, in behalf of which Dewey speaks.¹

The plausibility of Dewey's notion of "continuity" and "experimental method" of inquiry derives from the fact that it is the totality of our experience which is, in his view, experimental. He sees the experimental method as a systematic way of humanizing our philosophic or pure rational conceptions; that is, by making such conceptions useful within the complex situations of life. In positing the

¹Ibid., p. 264.

experimental method, however, Dewey seems to have left much room for equivocation by tying the validity of our knowledge and cognitive conceptions to the future consequences ensuing from the operative efficacies of such conceptions. A brief analysis and appraisal of his notion of "warranted assertibility" might, subsequently, serve to enable us to determine both the positive and adverse implications of this emphasis.

PART THREE

WARRANTED ASSERTIBILITY AND THE DOUBLE CHARACTER
OF KNOWLEDGE AS A VALUE

Chapter V

DETERMINING FEATURES OF TRUTH AND VALUES OF KNOWLEDGE

The background of Dewey's concept of "warranted assertibility" is found in his holistic notion of "experience". He indicates that everything that bears direct or indirect references and relations to the human life is experience. Distinctions which we often make between natural objects and events designate distinctions between parts of experience. Where such distinctions are essentially epistemic, he regards them as merely functional or logical in character. In accordance with this view of epistemic distinctions, Dewey offers "warranted assertion" as an alternative term for knowledge acquired as a verified or experimentally proven outcome of inquiry. In his own words: "When knowledge is taken as a general abstract term related to inquiry in the abstract, it means warranted assertibility."¹

Characterization of "knowledge" as "warranted assertion", however, raises some fundamental epistemological issues: For instance, are there any distinct or explicit lines of demarcation between the acts of knowing and knowledge which ensues from such acts? Are knowing (inquiry) and knowledge, as Dewey implies, so connected and intrinsically bound that the one is always required in order to constitute, explain and

¹Dewey, Logic, p. 9.

render the other comprehensible, or warrantedly assertible? The idea of "warranted assertibility", as it appears in the latter case, involves a denial of the possibilities of "immediate self-evident knowledge" - a possibility commonly accepted by modern philosophers. As opposed to this possibility, Dewey actually asserts that knowledge "is in every case connected with inquiry."¹ For him, it appears that every piece of knowledge has to be experimentally or discursively verified in order to be regarded as valid or warrantedly assertible.

In explaining the idea of "warranted assertibility", Dewey emphasizes that, although there are cognitive and non-cognitive objects or ends and values in our natural situations and lived-experiences, "knowledge" as such can never be rightly characterized as "immediate" and "self-evident" at the same time: "No knowledge is ever merely immediate."² This is because there are antecedent conditions and eventual consequences which lead to knowledge, or derive as results of its subsequent application.

Following the modern philosophic convention which ascribed "self-evidence" to some forms of immediate knowledge, it appears that if every piece of knowledge is to be verified and justified through inquiry, then no knowledge

¹John Dewey, "Proposition, Warranted Assertibility and Truth," In Dewey and His Critics, Edited By Sidney Morgenbesser, p. 271.

²Dewey, Experience and Nature, p. 322; Logic, p. 139.

would ever have an ultimate cognitive base or assured cognitive grounding. The chain of justifications and experimental verifications might, on the one hand, be regressive and infinitely continuous; or, on the other hand, such a chain might become ambiguous and unacceptably circular. The question here is, if the possibility of immediate self-evident knowledge is rejected, how do we halt the infinite regress of cognitive justifications? And if such regress does not need to be permanently halted, as Dewey seems to indicate, how do we find the assured cognitive criterion to measure the validity and ensure the truth of knowledge without being involved in the dilemma of ambiguous circularity.

Since Dewey has, in unequivocal terms, denied the possibility of immediate self-evident knowledge, it is necessary, in this final part of our analysis to elicit from him, what really constitutes the criterion for knowledge. Toward this aim, it is important, first, to diffuse the doctrinal mystery which surrounds the conventional idea of immediate knowledge. Second, since Dewey insists on connections and continuity between our knowledge and values, a brief appraisal and critical evaluation of his conception of kinds and criteria for values might, in effect, provide significant pointer to the degree of emphasis he places on knowing and knowledge as ends or values in themselves, and as functional "means" to other ends.

Immediate Knowledge

Dewey's disparagement of the idea of immediate self-evident knowledge is actually based on the assumption that there are two irreducible factors among our cognitive conditions which, being antecedent, yield extensive influences on all our cognitive efforts and conceptions of cognitive ends and means. These factors are "mind which is the centre of the process of experiencing and the natural world which is experienced."¹ Complete isolation of these factors from each other appears as unwarranted and as an indirect denial of the extensive continuity between the acts of knowing and knowledge which ensues from such acts.² The outcome of this denial is dogmatic; dogmatic in the sense that the idea of immediate knowledge tends to cut-short the furtherance of inquiry into the objects of knowledge.

It might be stressed here that "knowledge", by its very nature and definitions, and as distinct from mere conjectures or relative individual opinions, is commonly regarded as "true". Granted, in this case, that both knowledge and our imaginary conjectures or relative opinions generally involve some elements of human belief and understanding, it would appear that some measure of investigative probe is always

¹Dewey, Experience and Nature, p. 24.

²It is observed in Part One that the operations of the mind are always secondary within the sequential order of events in our life and natural situations. From this, it follows that we cannot, without some contradictions, assert that "knowledge" which is in part, at least, derived from these secondary operations is immediate rather than a mediated product of inquiry.

required in order to prove the "truth" or validity of knowledge. Following this kind of reasoning, the possibility of immediate self-evident knowledge might be completely ruled out. In fact, modern philosophers, like Descartes and John Locke acknowledged that relative opinion, mere conjecture or "lucky guess should not count as knowledge;" they nevertheless emphasized the possibility of immediate knowledge.¹ For them "clear and distinct ideas" appear to be the main factors in determining the truth of knowledge and, in particular, the warrant of immediate knowledge.

Both Descartes and Locke were, as a matter of fact, concerned with the source or actual base for clear and distinct ideas: Is such a base material and empirical or immaterial, intuitive and purely intellectual? To resolve this problem, Descartes indicated that clear and distinct ideas are innate, self-assertible and self-explanatory objects that are accessible through our intuition alone.² Unlike

¹Paul Edwards, ed., The Encyclopedia of Philosophy 8 vols., 1972, s.v. "Knowledge and Belief," By Anthony Quinton.

²The fact that Descartes was able to discover the actuality of his thinking "self" through his personal doubts was interpreted, by him, as a prove that clear and distinct ideas derived from intuition or pure reason embody perfect certainty. He, in this case, apparently overlooked the transversal character of our mind-body operations by positing the primacy of mind over matter, reason over experience, or subjective over the objective aspects of our life and natural situations. See: Descartes: Discourse on Method and Meditations, Translated By F.E. Sutcliffe, (Middelsex, England: Penguin Books Ltd., 1968), pp. 43-47; 132.

Descartes, however, Locke recognized the importance of conjugate mind-body operations in making cognition itself possible. He rejected the Cartesian doctrine of innate ideas and, instead, asserted that the mind generally acquires "simple ideas" through reflective operations and through the "motor activities" of our senses. Although he used "experience" as the appropriate background for all knowledge, he nevertheless upheld the concept of "self-evidence" and self-assertibility of these simple ideas derived from experience.¹ In fact, Locke generally tends to support the rationalistic theory which indicates that there are impassable barriers between sense objects which are "particular and transient, and objects which are permanent and have identical ultimate 'constitution' or structure."²

In rejecting the conception of immediate knowledge, exemplified in Cartesian and Lockean epistemologies, Dewey argues that modern philosophers have misconstrued "immediate apprehension" of already existent objects and ideas as a form of knowledge. He indicates, as a matter of fact, that,

...there are conceptual and objects of perceptual experience which have been so instituted and confirmed in the course of different inquiries, that it would be a waste of time...to make them objects of investigation before proceeding to make use of them. This immediate use of objects known in consequence of previous mediation is really confused with immediate knowledge.³

¹John Locke, "An Essay Concerning Human Understanding," In The English Philosophers: From Bacon to Mill, Edited By Edwin A. Burtt, pp. 250 & 266.

²Dewey, Logic, pp. 146-147.

³Ibid., p. 140.

To diffuse the puzzle surrounding the concept of "immediate knowledge, therefore, he distinguishes between mere "apprehension" and "warranted assertion".

"Apprehension", for Dewey, designates sense perception or intellectual grasp of objects without questioning.¹ Taken as a general term, "apprehension" might actually involve casual and already developed habits, or objects of prior experience and "acquaintance" as well as recognition of "mediated conclusions drawn from them."² Both familiar and unfamiliar objects could, as a matter of fact, be immediately apprehended. Since prior experience is apparently always involved in interpretation, even of unfamiliar objects, it appears that,

...immediate apprehension of an object or event is no more identical with knowledge in the logical sense required than is immediate understanding or comprehension of meaning.³

The fact that an object or conception is directly apprehended or taken and used does not, in other words, indicate that the object is both self-evident and, at the same time, immediately known. Rather, it shows that the object or conception might be relevant and evidential in further

¹Ibid., p. 143.

²Ibid., See also: Experience and Nature, pp. 328-330.

³Ibid., p. 144.

inquiry directed "toward knowledge" or justified assertion.¹

In view of the fact that experiences are had before they are actually cognized, we might admit that the ascription of self-evidence to "direct apprehension" designated as immediate knowledge by modern philosophers, is misleading. Immediate apprehension could obviously involve some elements of cognition; but, to accept the possibility of "immediate self-evident knowledge" would, it seems, involve a denial of the indispensable relevances of investigative contexts or interactive situations in making true knowledge of objects possible. Dewey actually indicates that, where the epistemic relevances of inclusive interactive fields are acknowledged, "immediate apprehension" would appear as a precondition, but not as sure guarantee that the apprehended objects are evidential to the "final assertion" to be reached in inquiry.² By this, he implies that there are always antecedent objects and relational connections discriminatively sorted out, selectively evaluated and synthesized in order to reach any warranted cognitive conclusion. To posit knowledge as both immediate and self-evident would be, in brief, to deny the importance of operations of the principle of "selective emphasis" in our efforts toward "knowledge" or "warranted assertion."

¹Ibid., pp. 143-144.

²Ibid., p. 144.

It is obvious that "knowing" often involves discriminative acts of evaluation: Preferential elimination and selection from among antecedent objects or conceptions whose evidential relevances appear to be basically pertinent and indispensable in reaching a warranted conclusion for an on-going inquiry are generally unavoidable in reflective inquiry itself. In Dewey's own words: "Selective emphasis, choice, is inevitable whenever reflection occurs."¹ Yet, it seems not only presumptuous, but equally absurd to assert that antecedent objects or cognitive conceptions derived from such objects must have been verified and proven through past inquiries before being used as dependable evidences in an on-going inquiry. Where "A" is, for instance, observed as an important evidence in inquiry, it appears that any attempt to justify "A" before using it as an evidence might lead regressively to A₁, A₂, A₃, and so on, to infinity; that is, without any warrantable cognitive base in sight. In other words, there arises the need to halt the infinite regress of cognitive justifications and, thereby, to give knowledge itself assured cognitive background. In derogating the idea of "self-evidence" which philosophic convention attached to "immediate knowledge", Dewey actually tends to overlook the possible regress of cognitive justifications.

¹Dewey, Experience and Nature, p. 29.

According to Anthony Quinton, the desperate need to halt the infinite regress of cognitive justifications has led many philosophers to admit the possibility of "immediate self-evident knowledge":

Philosophers have fastened on two forms of intuitive knowledge which...can terminate the regress of justification. First, there are self-evident necessary truths, and second, there are basic contingent statements immediately justified by experiences they report and not dependent on the support of any further stable item of knowledge.¹

Dewey himself acknowledges that there are some plausible or supportive grounds for ascribing "self-evidence" to intuitive and ostensive forms from immediate apprehension. He, on the other hand, explains that what is self-evident is the meaning of apprehended objects:

To say that it is self-evident means that one who reflects upon it in the meaning system of which it [objects] is a member will apprehend its meaning in that relation - exactly as one might apprehend the meaning, say, of empirical proposition 'that ribbon is blue'...[The]...theoretical interpretation of the significance of the meaning directly apprehended is far from self-evident.²

Rather than dwell on the problems of "infinite regress" which might, however, result from the attempt to justify the significance of every "meanings directly apprehended," Dewey, for some arbitrary reasons, avoided these problems. As a matter of fact, he prefers to look not to the past,

¹Paul Edwards, ed., Encyclopedia of Philosophy, 8 vols., 1972, s.v. "Knowledge and Belief," By Anthony Quinton.

²Dewey, Logic, p. 156.

but to the future for the warrant of these meanings. For him, the predictable efficacies and eventual consequences which derive from purposeful application of these meanings within complex cognitive contexts are what actually verify and validate the significances attached to these meanings as "warranted assertions." Against this partial emphasis on the future, one might object that Dewey has left "knowledge" without unequivocal basis.

In answer to this objection, Dewey might stress that the essential qualities or intrinsic values of things, including knowledge, can only be disclosed and cognized through their functional efficacies or extrinsic values. In his own words:

The common assumption that there is a sharp separation between things, on the one hand, as useful, and on the other hand, as intrinsically good...does not in any case, state a self-evident truth.¹

In other words, he implies that all forms of knowledge are derived and verified through complex situational interactions of antecedent objects: That there are indispensable connections between things in themselves and the operative efficacies of things is evinced in our conceptions of objects as "causes" in some instances, and as causative effects or consequences in others. Following Dewey, it appears that, if the meanings of immediately apprehended

¹Dewey, "Proposition of Appraisal," In An Introduction to Philosophical Inquiry, Edited By Joseph Margolis, p. 876.

causes or natural ends are posited as "self-evident", that is, as knowledge derived without the mediation of situational interactions, other relations and significances of the objects in question might never be discovered. In fact, both proximate and opposing ends to the one in question would require to be similarly treated as "self-evident". Again, if it is realized that, to fix antecedent natural causes or "means" as "ultimately necessary" or "self-evident" might equally require the fixing of their eventual consequences, then we might admit that it is already familiar cognitive ends which are comparatively sorted out, selected and used as interactive means toward other purposive ends or ends-in-view.

The fact, for Dewey, is that already proven knowledge might be immediately apprehended, selected and used as the background for further inquiries. Really, that there are some elements of contrasts and comparisons or selective bias involved in our reflective operations appears to be a truism. For as Dewey himself indicates:

Selective emphasis, with accompanying omission and rejection, is the heart beat of mental life. To object to the operation is to discard all thinking ...[In]...ordinary matters, we always retain the sense that the material chosen is selected for a purpose; there is no idea of denying what is left out, for what is omitted is merely that which is not relevant to the particular problem or purpose in hand.¹

¹Dewey, Experience and Nature, p. 25.

He appeals to matters of ordinary experience, in this case, to stress the need not only for open and candid stipulation of "how" the initial selections of data for more systematic inquiries are made. For him, the need to follow out both the functions and eventual consequences of these selections in unambiguous and open fashion appears necessary in order to show other inquirers "why" and "how" the eventual conclusions are reached. Where the elements of selective bias involved in cognitive operations are openly derogated and, at the same time, concealed within a methodic system of knowing, the ways are artificially or dogmatically blocked for other inquirers who might attempt to verify the appropriateness of the selective emphasis involved in the system. In brief, the ascription of absolute "self-evidence" to intuitive or empirical forms of "immediate knowledge", by modern philosophers, appears in Dewey's view as a typical instance of the "fallacy of selective emphasis".

By emphasizing the principle of selective emphasis, Dewey intends to show that already proven knowledge might be continuously verified and reaffirmed through the operations it articulates and directs. One might observe that by failing to specify "knowledge" which has direct bearing on particular contexts from "knowledge" derived as a result of "wholesale generalizations", Dewey tends to confuse the idea of antecedents and their eventual

consequences.¹ For him, eventual functionings of antecedent existences, especially conceptual generalizations which are the main concern of philosophic inquiry, appear to take precedence over the objects in themselves. Even the acknowledgement of relevant operations of selective emphasis seems in this case, to aggravate rather than diffuse the ambiguity found in his emphasis on the empirical method or on actual use and functions of knowledge as the only way of verifying its validity.

From the connections posited above between causes and their eventual effects, it seems to follow that what justifies any piece of knowledge is, in part at least, the operations of antecedent existences, that is, including the systematic or ordered efforts of the knowing subject. C.I. Lewis rightly stressed that while knowledge might bear significant references to future expectations and eventual functions or consequences, "at every moment, the validity of it as knowledge depends upon the past," or upon what is antecedent and immediately present.² Subsequent verifications of the warrant of such knowledge by other inquirers, as Dewey indicates, might depend on the continuous fulfillment of the functions which constitute the reasons for its initial acceptance as a "warranted assertion." For instance,

¹Smith, Purpose and Thought, p. 149.

²C.I. Lewis, "Review: Quest for Certainty," In Dewey and His Critics, Edited By Sidney Morgenbesser, pp. 257-258.

initial warrant for the general assertion, "all men are mortal", might be based on the fact that none of the first human inhabitants of the earth was still alive in Plato's era. The validity of this general principle would, nevertheless, be continuously verified, reaffirmed or, even, readjusted in the contemporary scientific era; that is depending on whether the contemporary man continues to die after a span of life.

Dewey might claim that acceptance of his partial emphasis on eventual functioning of antecedent objects and causative consequences that are disclosed through such functions would free us from erroneous ascription of primacy and ubiquity to abstract generalizations. While this claim apparently shows that his main concern is to propose a method that is rid of the mistakes of philosophic systems inclined toward arbitrariness and dogmatism, his partial emphasis on eventual functions and consequences appears to be quite unsatisfactory. This is simply because the intrinsic quality and value of our abstract generalizations or of "knowledge" as a warranted conclusion of prior inquiries cannot be identified with the functions or extrinsic values of the same knowledge either as a method or relevant "means" to other ends. Since Dewey himself acknowledges that "knowledge" is a kind of value, a brief appraisal of his concept of kinds and criteria for values might enable us to elicit what he

regards as the criterion for knowledge. Finally, we might also determine the adverse implications of functional connections which he posited between knowing and knowledge.

The Criteria for Values:

From the common-sensical point of view, one might rightly designate everything found in the natural world as a value. Dewey himself acknowledges this; for, in his own words:

Values are values, things immediately having certain intrinsic qualities. Of them as values, there is ...[however]...nothing to be said....All that can be said of them concerns their generative conditions and consequences to which they give rise.¹

In the light of this assertion, one might rightly admit that generative conditions and eventual consequences are relevant mostly to our conceptions of values, not to the values in themselves. Since things have intrinsic differences which are, sometimes, grasped on immediate contact with them, an important issue nevertheless arises against the latter part of Dewey's assertion: How do we recognize and even distinguish one kind of value from another merely on immediate contact; that is, without references to generative conditions and eventual consequences of these values?

Dewey actually anticipates this issue. He answers

¹Dewey, Experience and Nature, p. 396.

it by indicating that it is the extrinsic qualities of things which have direct affective impacts on us. In his own words:

Values of some sort or other...occur whenever any object is welcome and lingered over; whenever it arouses aversion and protest; even though the lingering be but momentary and the aversion a passing glance toward something else.¹

While it might be derived from this assertion that there are many kinds of values, another important question is also raised: Is it the experiencing subject who, influenced by his situational desires or needs and partial interests, determines both the kinds and the criteria for these kinds of values? Or, on the other hand, are there some ultimate and ulterior criteria which the subject should strive to achieve irrespective of his developed habits, situational influences or past and present dispositions?

Following Dewey, it appears that there are two main kinds of values. First, there are objects of immediate experience which are directly had without prior reflections about them. Dewey designates these objects as "casual values." Because contacts between the apprehending subject and value-objects, in this case, are merely accidental, he holds that casual values cannot be regarded as values par excellence.² As a matter of fact, such values might be

¹Ibid., p. 400.

²Dewey, Quest for Certainty, p. 258.

momentarily appreciated, liked, enjoyed or, even, desired by the apprehending subject; but casual enjoyments are, also, often regretted and detested in the long run. If this is the case, then the conclusive feeling of enjoyment or satisfaction of immediate desires with values that appear to be casual and unreflected would have to be generally rejected as a possible criterion for values.

Second, as distinct from casual values, there are objects deliberately sought, reflectively analysed, re-structured or intentionally constructed by us. Dewey regards these objects as "cultivated values". He asserts, matter-of-factly, that,

[men's] constant and inescapable concern is with achievement and frustration, good and bad. Since we are creatures with lives to live, and find ourselves within an uncertain environment, we are constructed to note and judge in terms bearing upon weal and woe - upon value.¹

Values in general might be regarded merely as values; for there are, in some instances, neither intrinsic nor apparent extrinsic differences to be found between casual and cultivated values. Objects involved in each case often appear to be no more valuable than the other. However, considering that critical judgement or "thought" and "knowledge" are factors traditionally regarded as essential constituents of the criteria for values, a fundamental difference might appear between the two kinds of values. Dewey sees this difference as one constituted by the various ways

¹Ibid., pp. 259 & 264.

through which these values are acquired: With knowledge of generative conditions, of eventual effects and after-effects of value-objects on our environing conditions, we can possibly secure, regulate, or control and appreciate such objects more for what they are. Unlike casual values which are liked and desired just for the momentary satisfaction they give, cultivated values which are mediated by thought and knowledge appear as values par excellence. They designate objects that are not only satisfactory, but continuously satisfying and desirable.

The "desirable" appears, in Dewey's perspective, to have two distinct interpretations. First, it designates ideal models or ends-in-view which emerge as results of pre-emptive thought. It might be stressed, however, that pre-emptive thought or judgements are secondary within the totality of experience: Judgement grows out of interactions of antecedent materials, interactions of objects as they enter into the general experience of the subject, blend with his "sensitivity and his knowledge and funded store from past experiences."¹ In line with this argument, Dewey emphasizes that, what is "desirable",

¹Stephen C. Pepper, "Some Questions on Dewey's Esthetics," In The Philosophy of John Dewey, Edited By P.A. Schilpp, p. 384.

...as distinct from the 'desired' does not designate something at large or a priori. It points to the difference between the operation and consequences of unexamined and those of desires and interest that are products of investigation of conditions and consequences.¹

Taken as outcome of pre-emptive thought or judgement, "the desirable" not only articulates general relations and norms which regulate existent conditions. Most significantly, it designates coherent expectations or standards still to be reached through the actual application of these norms.

Second, "the desirable" designates real objects acquired through efforts which are purposefully directed by foresight. Dewey himself insists that even if value-objects, in this latter case, are outcomes of practical efforts, such efforts are unified and rendered cognitively coherent by thought. In his own words:

Values...may be connected inherently with liking [or mere esthetic appreciation, satisfaction and enjoyment], and yet not with every liking but only with those that judgement approved after examination of relation upon which the object liked depends.²

By this he implies that while "thoughts" have certain functions, such as "discrimination and unification"; to perform toward the constitution of our real values, the outcomes of such thoughts alone might not be rightly regarded as the criteria for these values: Through thought, we might

¹Joseph Margolis, An Introduction to Philosophical Inquiry, p. 880.

²Dewey, Quest for Certainty, p. 264.

discover actual and potential significances, relations and generative principles which enable us not only to secure and control, but also to improve the qualities of our value-objects and render them recurrent. That we can prescribe rules and ideal models to enrich and improve our values apparently shows that "thought" is indispensable in constituting actual values. Yet, if thinking, as Dewey indicates, "arises only when and where antecedent values are at stake",¹ then such rules and ideal models cannot be properly designated as the criteria for values. In brief, since materials which evoke thought are often found within conditions which occasionally differ and become unstable, it appears that the appropriate criteria for values would only be found through critical judgement or inquiry into such conditions which integrate concrete objects as well as our desires, wants and vital interests.

From the foregoing, it might be concluded that for the outcomes of thought or critical judgement to be regarded as pertinent and valid, they have to bear references to qualitative conditions. Indeed, Dewey indicates that critical judgements about values have to bear close-references and vary with conditions which evoke and sustain them:

¹Feldman, The Philosophy of John Dewey, p. 93.

Judgements about values are judgements about conditions and results of experienced objects; judgements about that which should regulate the formation of our desires, affections and enjoyments. For whatever decides their formation will determine the main course of conduct, personal and social.¹

If it is realized that the outcomes of "thought" or judicial inquiry have intermediary or differential and directive roles to play in constituting our real values, then the idea of ulterior or ultimate criteria for values, advocated by many traditional and modern philosophers, would have to be completely rejected. Rather, the criteria for values would be seen as outcomes of inquiry into variable conditions, outcomes which integrate both our past and present experiences, or theoretical and practical efforts into cognitively coherent wholes. For Dewey, it seems that these coherent wholes could be, subsequently, modified not only to correspond, check, and effectively harmonize unstable conditions, but also to enrich and enhance the harmony of our future qualitative experiences. In fact, he holds that there is neither single nor any ultimate criteria for our real values.

Both the denial of single or ultimate criteria for values and the ascription of intermediary roles to normative relations and principles derived through "thought" and inquiry really evince Dewey's concern for retaining

¹Dewey, Quest for Certainty, p. 265.

the primacy and integrity of complex conditions or situations in which values, valuation and evaluative inquiries occur. By implying the interdependence of our conditional needs, desires or emotive choices and reflective judgements about values, he seems to have, however, fallen into a vicious circle. According to George Geiger:

That there is a seeming fallacy in this mutual interdependence of choices and values, desires and goods, is undeniable; but it is no more of a barrier to discussion than the scandalous circle in which induction and deduction themselves are intertwined. ...Even the definition of words is ordinarily circular despite the fact that one of the traditional rules for good definition denies it.¹

Since it might not be denied that the same qualitative conditions which stimulate desires might equally evoke and sustain our cognitive interests, then the idea of circular continuity between desires regulated by thought, or actual values enhanced and controlled by knowledge, and vice-versa, has to be acknowledged as plausible. In brief, for the outcomes of thought to be regarded as dominant and effective factors in controlling our desires and values, these ideational results have to be tested and measured in terms of their actual functions or of the harmony which they bring to the prevailing qualitative conditions.

The Eventual Consequences of Inquiry and the Criterion for Knowledge:

From the foregoing, it appears that the criteria for

¹Geiger, John Dewey in Perspective, p. 51.

values are constituted in complex qualitative situations in which antecedent objects as well as human thoughts, cognitive interests and controlled emotive desires have fundamental roles. The non-absolute characteristics which Dewey attributes to situational needs and desires are, apparently, intended to indicate that the standard measures for values are not merely reflective rules and prescriptions. Rather, they are end-results of controlled inquiry, end-results which designate effective settlements of actual satisfaction of situational demands.

Since it is acknowledged that objects within a qualitative situation have intrinsic and extrinsic qualities as that which endear them to us as assured values, one might, of course, rightly conclude that knowledge, understood as a form of value, has both intrinsic and extrinsic or functionally affective qualities. Dewey, as a matter of fact, stresses the need for recognition and appreciation of "the distinctive value of knowledge when once it comes into existence."¹ Since he, on the other hand, rejects the idea of a single, ulterior, or ultimate criteria for values in general, it appears necessary here to elicit, from him, what really constitutes the specific criterion for knowledge: The puzzle which surrounds Dewey's denial of "ultimate criteria" is not only aggravated by his characterization

¹John Dewey, Human Nature and Conduct: An Introduction to Social Psychology, (New York: Modern Library, 1950), p. 186.

of "criteria" as something derived. While he acknowledges the differences in the ways often used to derive and verify the truth of mathematical, ethical and physical forms of knowledge, he tends to confuse issues by supposing that one might, upon occasions, "hit upon knowledge accidentally."¹

In derogating the claim of possibilities of "immediate knowledge," made by many modern philosophers, Dewey contends that knowledge is always a mediated product of inquiry. In the light of this, he intends his idea of accidental or casual knowledge to indicate that, like casual values, such knowledge properly serves as stimulus for inquiry. It seems paradoxical to deny the possibility of "immediate knowledge" and, on the other hand, to assert the idea of casual or accidental knowledge as an apparent fact. Considering that many claims of "immediate certainties have turned out in the end to be false," Dewey's refusal to ascribe "self-evidence" to immediate knowledge would, undoubtedly, be accepted as plausible.² This refusal might be properly understood as a clear expression of his concern to avoid the common mistake of identifying and equating knowledge with "real" or concrete objects of our primary experience. Since objects of our familiar experiences - objects of immediate apprehension or sense perception and intuition

¹Ibid.

²Smith, Purpose and Thought, p. 82.

might, sometimes, appear accidentally and reassert themselves as things that are partially known, Dewey's idea of accidental knowledge might be understood and interpreted in terms of familiar experiences which are, as yet, uninvestigated. A question would arise here: If knowledge is quite distinct from our ordinary or familiar experiences merely by being a product of reflective inquiry, how is the value of knowledge as knowledge distinct from its eventual functions or motives which prescribe it as relevant "means" to other ends? In brief, is it eventual function and motive which serve as criterion to validate knowledge as a true or warranted assertion?

In resolving this issue, Dewey argues that existences that are immediately given might denote concrete facts or real experiences. That "such immediate experience is not itself cognitive" appears apparent in the fact that, when viewed from different positions or observational attitudes, an immediate object often leads to discrepant conclusions. As against the acceptance of discrepant appearances of objects of immediate apprehension as forms of knowledge, Dewey rightly indicates that things are comprehensible only when they are viewed in connection with other things. In fact, he proposes that the discrepant showings of objects of immediate apprehension should be treated more appropriately as problems which derive from dynamic interactions of two or more situational agents, agents including

apprehended objects and the apprehending subject. Once this is accepted as the case, the task of knowledge-getting would be seen essentially as a process, not just of explanation of mere appearances or antecedent reality, but particularly, of effective and controlled transformation of an entire problematic situation into a coherent or cognitively determinate whole.

The key to Dewey's conception of inquiry or knowledge-getting as a process of controlled transformation of indeterminate situations is found in his assumption of qualitatively dynamic characters of the situations in themselves. In line with this assumption, he implies that, in as far as problems which invoke "thought" and sustain inquiry evolve from complex interactions of situational agents, the criteria or measures for the validity of end-results of such inquiries have to be determined in terms of the actual resolutions of the situational problems. Following him, one might rightly conclude that "knowledge", taken as an end-result of inquiry, is logically distinct and quite distinguishable from knowledge-getting. As against the common philosophic conception of knowledge as absolutely separable from knowledge-getting, however, it appears both mistaken and misleading to accord the status of knowledge to untested end-results of thought: If such end-results as yet, untested are isolated from relevant evidential means and actual consequences deriving from controlled application of these means within the complex situation that evoked

inquiry, these results would appear to be outside the totality of our natural experience.

Contemporary philosophers who are inclined towards naturalism would concede that the validity of knowledge depends not just on its mere appearance as knowledge. Rather, it depends on the actual and potential relations of relevant evidential "means", relations which are generally disclosed through critical evaluation of means as well as controlled application of such means in order to effect actual settlements or determinations of given indeterminate situations. According to D.C. Mathur, for instance,

...any one who is very sensitive to knowledge-getting process in the specialized inquiries... will realize that there is no such thing as 'immediate knowledge.' Knowledge is a matter of achievement through the experimentally regulated operation of inquiry.¹

This implies that only when abstract conclusions or coherent end-results of thought are experimentally verified and proven to be in corresponding agreement with the actual consequences of controlled operations of selected evidential "means" which fund inquiry that such end-results might be designated as "warranted assertions."

The function of control of the operations of selected evidential "means", of course, involves the ingredients of

¹D.C. Mathur, Naturalistic Philosophers of Experience: Studies in James, Dewey and Farber Against the Backdrop of Husserl's Phenomenology, (St. Louis, Missouri: Warren H. Green, Inc., 1971), p. 81.

intelligence and prior cognitive experiences. It is Dewey's contention that all cognitive inquiry and, in fact,

[all] learning proceed from previous knowledge... without erecting the previous knowledge into dogma or extracted form into divine method.¹

Seen in the light of their epistemic relevance, not as isolated or ontological wholes, but as functional aspects of "given" situational facts, prior knowledge would appear as proven backgrounds for further inquiry. One might not, without doubts, admit that previous knowledge or prior cognitive experiences are never absolutely fixed in themselves. As aspects of the "given" in an indeterminate situation that evokes inquiry, it seems indisputable that previous knowledge enhances the specification of problems, the setting of intentional motives and suggestion of possible solutions for the problems of inquiry. Since prior knowledge actually represents only a minute part of what is generally regarded as "the given", it seems odd to ascribe the status of absolute criterion to such knowledge; that is, at the expense of the more indeterminate aspects of an entire qualitative situation that is given.

It might be stressed here that the general philosophical connotation of "the given" is often ambiguous.

¹Darnell Rucker, "Book Review of The Philosophy of John Dewey: A Critical Exposition of His Method, Metaphysics and Theory of Knowledge, By Robert E. Dewey," Transactions of C.S. Peirce Society, 15.2 (Spring 1979): 182.

For modern rationalists and the traditional empiricists, the "given" might represent clear and distinct ideas grasped through our intuition and common-senses respectively. According to Dewey, however:

That which is 'given' in the strict sense of the word 'given' is the total field or situation.... To be a datum is to have a special function of control of the subject-matter. It embodies a fixation of the problem in a way which indicates a possible solution. It also helps to provide evidence which tests the solution that is hypothetically entertained.¹

By this, Dewey implies that while the relevant functioning of prior knowledge toward the specification of problems and suggestion of their possible solutions reveals the indispensable connections between knowing and knowledge, it is entire qualitative situations which invoke and sustain inquiry that also control "the terms of thought". For him, terms of thought might designate distinctions of the contents of a qualitative situation; but it is only the return and effective applicability of such terms toward the actual resolution of given situational problems which "is the ultimate test of their validity" as "warranted assertions".²

From the foregoing, it appears conclusive that Dewey intends his emphasis on qualitative situations not only to indicate that such situations, always serve as logical

¹Dewey, Logic, p. 124.

²D.C. Mathur, Naturalistic Philosophies of Experience, p. 85.

backgrounds for coherent epistemic theories, hypothesis, or existential propositions. Most significantly, he implies that while qualitatively indeterminate situations evoke and sustain inquiry, it is the actual settlements or transformation of such situations which serve as relevant evidences or criteria to verify and validate the abstract outcomes of thought and inquiry as true knowledge or warranted conclusions. Two main objections might be, however, raised here against the use of "qualitative situations" as determining evidences or criteria for knowledge. First, in cases of inquiries appertaining to practical, empirically public or common-sense subject-matter, the transformative role of inquiry and the use of actual transformations of indeterminate situations as the criterion for ensuing knowledge might be seen as plausible. Where inquiry is, however, not directly concerned with materials of tangible magnitude or openly perceivable duration, but with purely abstract objects, it really becomes difficult to see, in view of Dewey's claims, how a qualitative situation could serve as the criterion for knowledge ensuing from such inquiry.

Considerations of the proper subject-matter of inquiry in terms of their actual existential contents might, of course, show that an existential situation that invokes inquiry always has size or temporal scope. In explaining the unprecedented relevance which Dewey attaches to the

"situation", however, John E. Smith observed that while references to the "size or scope" of a situation might seem inevitable,

...in the end this way of thinking...[turns out to be]...unpromising because Dewey's way of characterizing a situation is chiefly through its quality; the boundary of any situation turns out to be a matter of relevance or functional relation between its constituents depending on the quality which defines that situation.¹

By insisting that cognitive situations are bound and defined, not by their spatial and temporal scope, but through certain pervasive qualities, Dewey actually blurs the unbreachable gap which, in the views of many philosophers, still exists between empirical and purely intellectual subject-matter. Following him, one might, in this case, accept the plausibility of the contention that, irrespective of whether subject-matter is existential or non-existential, perceptual or conceptual and abstract, knowledge-getting or inquiry in general designates "ordered response to any situation having the pervasive quality of being 'indeterminate' or 'problematic'".² The determining evidence or criterion for measuring the validity of outcomes of such inquiry really appears to depend on the actual determination of the indeterminate situation.

¹John Smith, Purpose and Thought, p. 100.

²Ibid., p. 101.

Second, in view of the distinction which Dewey actually makes between a qualitatively indeterminate situation, its formulated relations or logical distinctions, and its final determination as cognitively coherent or unified existential whole, the plausibility of his conception of the criterion for knowledge as something derived, not primordial, might be granted. In fact, he intends this distinction to show that only logical and functional differences really exist between subject-matter that invokes inquiry or discourse, "its formulation in discourse," and its actual or eventual "articulation" as something whose constituent parts are functionally harmonious, distinctly ordered to enhance possible control and, thereby, warrantably assertible or known.¹ Since the qualitative situation, understood in the light of Dewey's logic, is more of a "functional organization" imbued with dynamic or moving qualities, it seems quite odd to assert, on the other hand, that such situations should be regarded as appropriate testing grounds as well as the criteria for validity of abstract generalizations, universal principles and unconditional forms of knowledge: The qualitatively problematic situation which invokes and sets the direction of inquiry might, undoubtedly, lead toward abstract generalizations. Yet, there appears a vicious circle in.

¹D.C. Mathur, Naturalistic Philosophies of Experience, pp. 85-86.

the emphasis which Dewey places on the "return" and experimental verification of abstract generalizations within the initial qualitative situation. The cryptic or unclarified significance of this emphasis, by Dewey, actually entails an over-all ambiguity which not only obstructs the general acceptance of his verificationist theory of knowing and knowledge. Dewey left the theory open and subject to relative interpretations and; therefore, susceptible to much criticisms.

In answering this objection, Dewey might contend that, since an object designating an end in itself cannot serve as its own "means" of attainment and explanation, then the process of inquiry and the qualitative situation which the process articulates have to be accepted as indispensable route and determining evidence for valid knowledge. In view of the overlapping boundaries and links which exist between the primary and reflective levels of experience, it might be stressed that there are circular connections and dynamic continuity between the acts of knowing and the ensuing knowledge: An indeterminate situation which stimulates and designates inquiry or the acts of knowing is, of course, often followed by a determinate one that derives as a result of controlled transformation of the former. Dewey sees what is indeterminate, in other words, as "partially normative" not only for enriching our understanding of what is determinate; but particularly, for

fostering, testing and validating the growth of our knowledge and values in general.¹

The fact that there are dynamic continuity or growth and circular connections between knowing and knowledge or between the two levels of experience is actually evinced in the ordinary interactions involving situational objects: In knowing, for instance,

... [the]... primary phase of ordinary experience is followed by the second, the intervention of systematic thinking which results in the refined objects of knowledge. The second phase is followed by a third, which is the return to the first phase, not a return to naivete and innocence, but one which preserves the meaning of the second within itself while returning to the concrete immediacy of the first.²

Dewey, it seems, rightly insists that relational activities designate the effective links or no-gap connections between the distinctive aspects of nature and levels of our life-experience. For him, ends and means, knowledge-getting and knowledge, or knowledge and values in general often assume normative postures as operational tools or contrasting evidences through which the relational meanings and significances of each other within the totality of our experience are disclosed and enriched. In his effort to explain this normative stance which seeming opposites have, not only in rendering each other meaningful to us, but also in fostering and duly checking each other's growth, however,

¹Sandra B. Rosenthal, "John Dewey: From Phenomenology of Knowledge to Experience as Experimental," Philosophy Today 22.1 (1978): 44.

²Ibid.

Dewey ambiguously integrates such activities as "knowing, doing and making."¹ To the extent to which he failed to distinguish and clearly specify these processes, which are in the light of general philosophic tradition quite distinct from each other, his characterization of inquiry as a reconstructive process, and of knowledge or "warranted assertibility" as an end-result of such process might be regarded as ambiguous and unsatisfactory.

Dewey's partial emphasis on "expectations" and use of "future consequences", deriving from actual efforts purposely aimed at fulfilling the expectations, as the appropriate measure for the truth of knowledge or warranted assertibility actually aggravate rather than diffuse the persistent puzzle concerning the basis for knowledge. In brief, he tends, unduly, to undermine the ineradicable status of antecedent objects and events, including immediate apprehension or knowledge, as dependable background for further knowledge. It might be, nevertheless, conceded to him that there is need for change from forming the idea of knowledge and values on the basis of mere conformity to the past to looking at the future as well.²

¹Smith, Purpose and Thought, p. 98. Dewey apparently blurs the three-fold distinctions which traditional philosophers, like Aristotle, commonly posited between "knowing, doing and making." These terms, taken respectively to correspond to "science, ethics and arts," were integrated and treated as reconstructive processes by Dewey.

²Dewey, Quest for Certainty, pp. 271-272.

Chapter VI

SUMMARY AND CRITICAL RESULTS

The best possible summary of the first part of this study lies in the claim that "experience" is both the subject-matter and method of all forms of knowing and knowledge. As subject-matter, "experience" is not only identical with natural objects and events. It is harmonious with the natural world as a whole. Experience is, in this case, considered to be a pervasive and an all-inclusive continuum. Primary experience which designates the subject-matter of inquiry, we are told in the first chapter, includes things as they are in themselves, as they interact with each other, and as they are immediately apprehended or directly had by us without prior reflections about them. As a method, experience is synonymous with the experimental method applied in the natural sciences. This method involves conscious observations of primary objects as well as phases of intellectual operations such as reflective analysis and synthesis, operations which are, doubtlessly, secondary within the experiential continuum.

The primary postulate of continuity in experience, understood in Dewey's view, stipulates the inevitable involvement of individual objects and kinds in the natural evolutionary trends and circles. Complete isolation of individual objects from each other or their preclusion

from the inclusive situations in which they exist and interact might, eventually, lead to their disintegration or render them inexplicable and meaningless. In the light of this fact, we saw that although the continuum of experience is all-inclusive of material and immaterial objects, it is characterized not by immutable substances or antecedent fixed essences, but particularly by interactions, mutual transactions or processes involving individual objects mainly as relevant tools, agents or parts of a complex dynamic whole.

By highlighting natural interactions and functions of objects, Dewey indicates that the continuity of experience really allows no place for permanent breaches and absolute ontological dichotomies between the included objects. Empirical operations involving these objects are matters of mutual undergoing, doing, and more undergoings between the agents involved. Some distinctions might be actually made between these situational agents, subjects and objects, body and mind, matter and form, act and intention and so on. Since such distinctions commonly bear references to situational relations or operational effects, significances and eventual consequences which individual objects produce upon contact with each other, then these distinctions might be, most appropriately, regarded as functional or epistemic and logical rather than permanent or absolutely ontological.

It is understandable that once the continuum experience is characterized as an on-going process or functional determinations of being and becoming, the idea of immutable forms, essences or predetermined objects of knowledge commonly used by dualistic philosophers to obstruct the furtherance of inquiries into the objects of knowledge is, in effect, avoided. Essences would, as Dewey himself claims, appear to be "logical, not primary ontological" determinations.¹ Where original noncognitive existences actually designate the subject-matter of knowing activities, it appears ambiguous and quite misleading to indicate that it is inquiry which "creates the substances with which it deals."² Substantiality, in Dewey's own words,

...is a form that accrues to original existence when the later operates in specified functional way as a consequence of operations of inquiry....Being a substantial object defines a function.³

This conclusion is apparently unacceptable because, for an original existence to operate in any specified way, it has, first and foremost, to be something substantial in itself.

In view of his derogation of the traditional philosophic notions of immutable essences, forms and primordial

¹Dewey, Logic, p. 129

²Ibid., p. 129.

³Fleckenstein, A Critique of John Dewey's Theory, p. 39.

substances, one might rightly conclude that Dewey has no metaphysics. In his thought,

...as in current science and ethics, there is a pervasive quasi-Hegelian tendency to dissolve the individual into his social functions, as well as everything substantial or actual into something relative or transitional.¹

There is really an underlying monistic tendency found in his characterization of experience as a "continuum" which is all-embrasive, qualitatively pervasive and unique. It is nevertheless unclear whether Dewey, by this characterization, intends to ascribe "substantiality" or, even, "immutability" to the totality of our experience. Since he, however, indicates that emphasis on "continuity" is actually a way of stressing nature's indifference toward "stability" and "change" of objects within it, it appears apparent that his main aim is not metaphysical in the traditional understanding of the word "metaphysics." His objective is rather to "develop a contextual and functional method of analysis and interpretation of subject-matters" of inquiry and of the eventual objects of knowledge.²

Dewey's conception of experience as "subject-matter" and "method" of inquiry actually evinces the fact that his aim is quite pluralistic. In his own words:

¹H.S. Thayer, Meaning and Action, p. 115.

²Ibid., p. 114.

The pluralistic and individualized character of [empirical] situations...is stated in direct connection with the principle of the experiential continuum.¹

It is observed, on the other hand, that emphasis on "continuity" equally presupposes that there are some forms of disjointedness and discontinuity in experience itself. Dewey tends to confirm this by stressing that "rational operations grow out of organic activities, without being identical with that from which they grow."² For him, this secondary postulate of continuity not only highlights the distinctiveness of the operations of the human mind or intellect. It stipulates the fact that there is continuous growth of the individual aspects or phases of experience; growth which is, in cases of knowing and knowledge, enhanced and vindicated by circular connections between organic and reflective or practical and theoretical operations.

In view of Dewey's pluralistic aims, the meanings which he attaches to "continuity" in general apparently become a moot point in his philosophy. In highlighting the two-fold interpretations of his idea of continuity in chapter two of this study, emphasis was particularly laid on the epistemological importance and merits which

¹John Dewey, "Experience, Knowledge and Value: A Rejoinder," In The Philosophy of John Dewey, Edited By Paul A. Schilpp, p. 545.

²Dewey, Logic, p. 19.

traditional pragmatists generally attached to "continuity:" Taking for granted that life activities are essentially psycho-physical, not just mental or extra-mental, these pragmatists commonly subscribe to the idea that logical and contingent natural orders cannot be mutually exclusive of each other. For both Peirce and William James, occasional cross-references between the two cognitive orders are inevitable, especially where the progress of our logical operations or thought is internally blocked. Dewey carried this emphasis to its logical conclusion by stressing that "continuity" is extremely relevant and indispensable in the ways we acquire valid knowledge and real values. For him, the acknowledgement of the fact of continuity between logical and contingent natural operations dissipates the epistemological problems arising from artificial separations of mind and body, sense and intuitive objects, acts and intentions, and so on. He actually indicates that sense-data and our abstract conceptions should be considered as cognitive tools and symbols, rather than representations of "reality". Again, the dualistic conception of truth or valid knowledge either as a matter of correspondence of mind with reality or of systematically arranged ideas ordered in such a way as to form a coherent abstract whole appears to be inappropriate. Knowledge is rather described as a matter of achievement - a distinctive product of inquiry into empirical situations in which utility of data

and abstract conceptions serves as norm for their actual relevance or validity.

The identification of truth and validity of knowledge with verification of cognitive conceptions might, in fact, be acceptable in common-sense and practical fields where utility and mutual functioning of cognitive agents can serve ostensibly as norms. For knowledge to be regarded as valid in such fields, it has to bear references to other aspects of the inclusive empirical conditions, conditions which Dewey, in other words, regards as the "continuum of experience." If the cognitive realm is, however, wholly enclosed within the noncognitive continuum of experience, as Dewey apparently indicates, a problem really arises:

How do we derive and explain the unconditional character of rational knowledge or universals, general principles and logical forms? To resolve this issue, we discussed what Dewey considers as the appropriate method and phases of cognitive inquiry. We saw in chapter three of this study that, although the experiential continuum as a whole is limitless, there are always some distinctive observational fields within it, fields or situations which, being tentatively problematic and doubtful, stimulate thought and serve as both primary and regulative conditions for the direction of the process of ensuing reflective inquiry.

Inquiry is generally described in chapter four as both reconstructive and transformative processes of

determination of doubtful or indeterminate situations into determinate ones. Since inquiry, understood in Dewey's sense, designates not just indiscriminate processes, but various forms of "adaptive responses" involving thought, it is right to admit that the directions of inquiry depend not just on thought or reflective inquiry as such. Rather, such directions differ accordingly, depending on whether the primary situation that invoked inquiry is existential or non-existential, perceptual or conceptual. Moreover, we saw that although inquiries with existential and non-existential references are logically distinctive, the eventual outcomes of such inquiries might not be completely separated and isolated from each other. While explaining this, Dewey emphasizes that there is a continuum of inquiry in which primary inquiry with its existential references designates the essential causes of logical forms and general principles which are actually disclosed and understood through inquiry into inquiries. Just as general principles and logical forms appear to be derived, not primordial within the continuum of inquiry, it really seems that the veracity of these principles and logical forms are equally derived from the primary operations which they articulate and control.

By appealing to the methodic phases and procedures of the physical sciences, Dewey argued convincingly that primary inquiry as well as pure reflective analysis and

synthesis, designating inquiry into inquiries, have to be recognized and treated as connected or overlapping phases of the same continuous process. It is acknowledged that even in the physical sciences, the outcomes of primary inquiry, designating the original data from observations, are often regarded as quite distinct from the outcomes of reflective analysis and synthesis. Yet, as Dewey rightly claims, data from preliminary observations are commonly used as tools to enhance the systematic operations of thought or reflective analysis and synthesis. Abstract outcomes of the latter operations are, in the physical sciences, equally returned and applied experimentally to enhance further observations and, eventually, to resolve the initial problems which necessitated inquiry. Veracity of the abstract outcomes of latter operations is, in fact, derived not from the outcomes themselves. It appears to depend on the effective application of such outcomes as directive or controlling forms of activities which eventually resolve the initial situational problems.

In proposing the idea of a continuum of inquiry, Dewey aims at deposing the modern dualistic methods and conceptions, conceptions which erroneously ascribe substantial or permanent entitative status to abstract universal, logical forms and general principles. Against such methods and conceptions which he regards as "spectator theories", Dewey contends that while general principles

and logical forms might not bear direct references to existential contexts, they cannot, in any case, be isolated from the inclusive system of meanings. Meanings as meanings might doubtlessly constitute distinctive subject-matter of inquiry. Since individual systems of meanings are, however, indispensable, not independent, in articulating and explaining objects and events as they appear within the complex continuum of experience, it appears conclusive that there is no permanent entitative underpinning in reflective experience itself. In other words, if it is acknowledged that the operations of "thought" are secondary and intermediary within the experiential continuum, then the eventual outcomes of thought would have to be interpreted accordingly as meaning-symbols. Taken as general principles and logical forms, such symbols, for Dewey, designate norms derived from operations actually performed and proven. Moreover, they designate forms of methodic operations yet to be performed and proven by the eventual consequences they produce within the primary situations of inquiry.

By characterizing the totality of "experience" as a continuum with two distinct dimensions, Dewey actually "provides for perceptual realism as well as for the discovered necessities of logical forms," abstract universals

and general principles.¹ His idea of continuity, in this respect, not only bridges the mind-body gaps or the artificial hiatus created between subjects and objects, acts and intentions, or subjective and objective aspects of life and the natural world through arbitrary intellectualism. It goes further to provide the missing answers for the pluralistic aims of empiricism; that is, by emphasizing life-activities and natural interactions as the embodiment of actual linkages between the complimentary aspects of experience. The plausibility of the idea of continuity in this respect is apparently indisputable.

The problem is that in proposing the continuum of inquiry, Dewey blurred the essential differences and relevant distinctions which are traditionally made between ontological, psychological and logical aspects of cognitive experience. His unprecedented emphasis on the continuum of inquiry really creates an erroneous impression; that is, to the effect that while the background of all knowledge is empirical and non-cognitive, the origin of all learning and knowing is itself psychological. It is observed that although this simple psychologistic tendency has no direct negative impacts in Dewey's philosophy as a whole, it nevertheless aggravates the puzzle surrounding his

¹Joseph Magolis, "The Relevance of Dewey's Epistemology," In New Studies in the Philosophy of John Dewey, Edited By Stephen M. Cahn, pp. 134-135.

unconventional use of epistemic terms to designate both cognitive and non-cognitive phenomena: He uses such terms as "uncertainties" and "doubts" ambiguously to describe, not just traits that are characteristically peculiar to the knowing subject, but entire situations that appear to be indeterminate or problematic. In the views of some of his critics, this is apparently unacceptable. That is because it seems to represent an unwarranted deformation of our "familiar cognitive phenomena" by forcing it not only to be internally connected; but most particularly, to be both continuous and in strict accord with the non-cognitive phenomena.¹

It is suggested that if Dewey had expanded the dimensions of experience beyond two categories, the overall ambiguity found in his characterization of inquiry as a "continuum" might have been completely dispelled. By failing to expand the experiential categories, however, he also failed to make adequate provisions "for standard use of cognitive terms." The fact is that wherever he makes such provisions, he uses such cognitive terms mainly to designate functional "means" and instruments of control, reconstruction or transformation of larger cognitive contexts or situations that tend to be indeterminate. Sense data and our pure abstract concepts are, for instance, described by him as tools, not as forms of knowledge or

¹Ibid., pp. 137-138.

things in themselves. In brief, he implies that the implicit values or essential qualities of our sense data and abstract conceptions have to be completely identified with their being evidential, functionally relevant or useful within the larger context of inquiry from which the final objects of knowledge eventually emerge. This is ambiguous and unacceptable.

By implying in a similar manner that the validity of knowledge depends on the functions or utility of such knowledge within the continuum of inquiry, Dewey actually tends to avoid the issues concerning the implicit values of knowledge as knowledge, as something in itself. His characterization of the totality of experience as "experimental", and the conception of the continuum of inquiry, not just as a process of knowing, but as a reconstructive and self-corrective process clearly evince the fact that he has over-stressed the operational or functional values of knowledge at the expense of knowledge itself. It is observed that the traditional empiricists similarly characterized experience as "the instrument of control and the criterion of the truth of knowing."¹ But they also recognized and stressed the distinctiveness of the implicit qualities and the functional or potential qualities of things, including both empirical and rational knowledge.

¹Paul Edward, ed., Encyclopedia of Philosophy, 8 vols., 1972, s.v. "Psychologism", By Nicola Abbagnano.

In derogating the idea of "self-evidence" which rationalists and the traditional empiricists commonly attached to immediate knowledge, however, Dewey clearly indicates that the truth of knowledge derives and depends on the continuous and successful fulfilment of certain functions within the continuum of inquiry, not on knowledge itself. To insist, as Dewey has in this case, that "both in particular and universally," the truth of knowledge and knowledge itself are to be determined and defined only "in terms of inquiry, not vice-versa,"¹ is apparently an ambiguous overstatement of the fact of dynamic continuity which characterizes inquiry or knowing in general.

The over-all ambiguity embodied in Dewey's scanty categorization of experience, if taken seriously, equally confirms the inadequacy of his justificationist or instrumentalist theory of knowledge. It is not only absurd to characterize our sense-data and cognitive conceptions or knowledge and values generally only in terms of their use as instruments. Complete acceptance of the justificationist method, proposed by Dewey, would apparently make it impossible for us to discover and learn any permanent and indisputable truths about the nature of things found within the continuum of experience. We saw in the last part of this study that Dewey considers "warranted assertibility"

¹Dewey, Logic, p. 21.

as a synonym for "knowledge", knowledge taken in the abstract as experimentally verified and proven outcome of controlled inquiry. Even as an eventual outcome of inquiry, we also saw that like other cultivated values, knowledge appears to be something substantial or, at least, something imbued with inherent qualities which makes it appear "self-evident" upon subsequent occasions. In short, knowledge is a value with a double character.

While Dewey, as a matter of fact, acknowledges that knowledge, taken as a value and as a terminal conclusion of controlled inquiry, is something in itself, he nevertheless contends that things in themselves are merely esthetic objects of enjoyment. For him, knowledge in itself appears to be no more than something to be relatively appreciated and enjoyed by the knowing subject. In the light of the fact that knowledge is, by definition, something true or indisputable, not casual conjectures or mere opinions, Dewey's conception of knowledge as "warranted assertibility" or verified and proven outcome of regulated inquiry appears to be quite plausible and acceptable. Where he, on the one hand, regards prior knowledge as dependable instruments of control, and on the other, claims that what warrants the ascription of knowledge and serves as the criterion of its truth is the successful operation of inquiry in determining and resolving tentative situational problems that invoke and sustain inquiry itself, his idea

of "warranted assertibility" really appears ambiguous and unacceptable. In brief, Dewey implies that taken as instruments of control, all knowledge stands open to possible modifications and corrections in the course of further inquiries. Since truth (knowledge) is, however, not generally associated with "tentativeness", it appears that his use of contingent qualitative situations as the criteria for knowledge and values generally is unwarranted.

CONCLUSION

The tentativeness which Dewey attaches to "warranted assertions" is meant not only to indicate that knowledge itself is subject to possible modifications and continuous growth. It is particularly intended to allow for the contingency or contiguity and temporality of our value-objects, or of the entire qualitative situations which often constitute the subject-matter of inquiry or of knowing in general. In fact, Dewey rightly discovered the linkages between the cognitive and non-cognitive realms, theories and practices, knowing and knowledge, or knowledge and values generally in the mediating categories of transient and transitive activities. He persists in preserving these linkages. And it is this persistence which entails the far-reaching ambiguity found in his conceptions of experience in general and of knowledge and value in particular.

Dewey actually uses "continuity" as an inclusive category in his philosophy to designate such existential traits as natural interactions, contiguous connections and growths. For him, "continuity" is, however, not only "something seen and discovered"; it is also "a way of seeing and discovering."¹ Continuity is actually used, in this latter sense, to designate an epistemological principle, a principle which signifies both circularity and dynamism of relations of agents involved in the processes of inquiry. Such processes, of course, involve constant and inevitable cross-references or transactions between the mind and the natural world, or between the perceptual and the conceptual realms of experience.

The idea of continuity in experience might not be completely acceptable where it is used to imply that all knowledge have to be useful within the existential world in order to be regarded as valid assertions. Since his insistence on the need for constant return, tests and verifications of abstract concepts derived from the process of inquiry is apparently intended to indicate that there are no permanent or absolute lines of demarcation between the complementary aspects of experience, the idea of continuity has to be accepted as plausible and indisputable. In supporting a similar view, C.I. Lewis rightly stressed that,

¹H.S. Thayer, Meaning and Action, p. 116.

...the mind must bring to experience whatever serves as the criterion for interpretation - of the real, as of the right, the beautiful and the valid.... Nevertheless, the validity of such interpretation must reflect the character of experience in general, and meet the pragmatic test for values as a guide to action.¹

In brief, the idea of continuity allows for the reciprocal and enriching normative influences which individual objects and events within the inclusive realms of experience have over each other. It is conclusive that Dewey has, in the light of these normative influences, linked the operations of knowing and knowledge or knowledge and values in general.

¹C.I. Lewis, Mind and World-Order: Outline of a Theory of Knowledge, (New York: Dover Publications, Inc., 1956), p. 27.

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