

FOUNDATIONS, RATIONALITY, AND INTELLECTUAL RESPONSIBILITY: A PRAGMATIC PERSPECTIVE

Sandra B. Rosenthal

Loyola University, New Orleans

Classical American pragmatism -- that movement incorporating the thought of William James, John Dewey, Charles Peirce, C.I. Lewis, and G.H. Mead,¹ is well known for its emphasis both on scientific or experimental method and on human biological activity. Paradoxically, various ways in which these features have been appropriated by philosophers drawing on this tradition have resulted, on the one hand, in the view that its understanding of rationality is blatantly foundationalist and, on the other hand, that it is anti-foundationalist, historicist, and, at the extreme, heralds the end of metaphysics. However, a focus on the complexities of the pragmatic understanding of scientific experimentalism and biological activity will reveal them as the essential pragmatic tools for fashioning a paradigmatic novelty which is neither foundationalist nor antifoundationalist but rather undercuts the frameworks within which such alternatives make sense. In so doing, it in fact lays bare a new understanding of the nature of foundations and, concomitantly, a new understanding of rationality and intellectual responsibility.

The ensuing discussion will first turn briefly to the pragmatic understanding of scientific method as the structure of inquiry as such, exemplified by any and all experimental activity. Such an understanding avoids reductionistic tendencies to confuse or conflate scientific method and

scientific content; avoids formalistic attempts to confine scientific thinking within fixed rules and decision procedures, thus robbing scientific method of its speculative directions; and sets the stage for an understanding of knowledge in general which eludes the alternatives of foundationalism or antifoundationalism as well as related sets of traditional alternatives.

The beginning phase of scientific -- method not as a formalized deductive model, a metaphysical enterprise illicitly reifying scientific contents as supposed ultimate truths, or a causal analysis of humans and their environment² but as *lived experimental activity* -- exemplifies human creativity. Scientific creativity arises out of the matrix of ordinary experience and in turn refers back to it. Though the contents of an abstract scientific theory may be far removed from the qualitative aspects of everyday experience, such contents are not the found structures of some "ultimate reality of nature." Rather, they are abstractive transformations of lived experience, and the possibility of their coming to be as objects of scientific knowledge requires and is founded upon the qualitative experience of the scientist. As Mead observes, "the ultimate touchstone of reality is a piece of experience found in an unanalyzed world We can never retreat behind immediate experience to analyze elements that constitute the ultimate reality of all immediate experience, for whatever breath of reality these elements possess has been breathed into them by some unanalyzed experience."³ In Dewey's terms, the refined products of scientific inquiry "inherit their full content of meaning within the context of actual experience."⁴

However, the return to the context of everyday or "lived" experience is never a brute return, for, as Dewey continues, "we cannot achieve recovery of primitive naivete. But there is attainable a cultivated naivete of eye, ear, and thought, one that can be acquired only through the discipline of severe thought."⁵

Such a return to everyday primary experience is approached through the systematic categories of scientific thought by which the richness of experience is fused with new meaning. Thus the technical knowing of second-level reflective experience and the "having" of perceptual experience each gain in meaning through the other.

Further, such creativity implies, for the pragmatist, a rejection of the "passive-spectator" view of knowledge and an introduction of the active, creative agent who, through meanings, helps structure the objects of knowledge, and who thus cannot be separated from the world in which such objects emerge. Thus James notes of scientific method that there is a big difference between verification, as the cause of the preservation of scientific conceptions, and creativity, as the cause of their production.⁶ As Dewey emphasizes this noetic creativity in science, "What is known is

seen to be a product in which the act of observation plays a necessary role. Knowing is seen to be a participant in what is finally known." Both perception and the meaningful backdrop within which it occurs are shot through with the interactional unity between knower and known.⁷ Without such a unity there is no scientific world and there are no scientific objects.

Such a creative noetic structuring of a world brings objects into an organizational focus from an indeterminate background, and, as constitutive of meanings as dispositional modes of response, yields purposive, teleological, or goal-oriented activity.⁸ The system of meanings both sets the context for activity and rigorously limits the direction any activity takes, for such meaning structures are constituted by possibilities of acting toward a world.

Finally, the adequacy of meaning structures in grasping what is there, or in allowing what is there to reveal itself in a significant way, must be tested by consequences in experience. Initial feelings of assurance, initial insights, initial common assent, or any other origins of a theory do not determine its truth. Only if the experiences anticipated by the possibilities of experience contained within the meaning structures are progressively fulfilled -- though of course never completely and finally fulfilled -- can truth be claimed for the assertions made. Such unfolding of experience in conformity with projected anticipations represents a self-corrective rather than a building-block model of knowledge. The meanings or rules governing the organization of experiences are judged by their ability to turn a potentially indeterminate situation into a resolved or meaningfully experienced one. Thus Peirce stresses that scientific method is the only method of fixing belief, for it is the only method by which beliefs must be tested and corrected by what experience presents.⁹

The role of scientific method in understanding everyday experience within pragmatic philosophy is evinced in several brief but telling remarks. As Dewey observes, awareness, even in its most primordial state, "represents a general trend of scientific inquiry." It means things entering, via directed activity, into a condition of "differential -- or additive -- change."¹⁰ Or, as he summarizes, "There is no difference in kind between the methods of science and those of the plain man."¹¹ Peirce emphasizes the same point in his claim that the creative interpretations of scientific endeavor shade into everyday perceptual claims without any sharp line of demarcation between them.¹² Or, in Mead's terms, scientific method is embedded in the simplest process of perception of things in the world.¹³ Again, Lewis attempts to clarify the noetic creativity ingredient in scientific objects by turning to the understanding of "thinghood" within common sense.¹⁴

The use of the model of scientific method in understanding everyday

experience is in no way an attempt to assert that perceptual experience is really a highly intellectual affair. Rather, the opposite is more the case. Scientific objects are highly sophisticated and intellectualized ways of dealing with experience at a second level, but they are not the product of an isolated intellect. Rather, the total concrete human way of being, a way rooted in praxis, is involved in the very ordering of any level of awareness, and scientific knowledge partakes of the character of even the most rudimentary aspects by which a world of things emerges within experience. The abstractly manipulative and instrumental purposes attributed to science have their roots at the foundation of the very possibility of human experience in general.¹⁵

Pragmatism, in focusing on scientific method, provides a phenomenologically or experientially based description of the lived-through activity of scientists that yields the emergence of their objects. In so doing, it is focusing on the explicit enlarged version of the conditions by which anything can emerge within experience, from the most rudimentary awareness of everyday things to the most sophisticated objects of scientific knowledge. In providing a description of the lived experience within which the objects of science emerge, pragmatism uncovers the essential aspects of the emergence of any contents of awareness. The pursuit of scientific knowledge is an endeavor throughout which the essential characters of any knowing are "writ large". It partakes of the character of even the most rudimentary ways in which human activity involves anticipations of future experience to come.

A proper understanding of the lessons of scientific method reveals that nature, into which the human is placed, contains the qualitative fullness revealed in lived experience. In addition, the grasp of nature is permeated with the meaning structures by which humans and their world are interactionally or intentionally bound, at the levels of both common-sense experience and scientific reflection. Thus, scientific method itself reveals that purposive biological activity, in so far as it is the foundation of meaning, cannot be understood in terms of the scientific contents or scientific categories which presuppose it. Rather, it is the "lived through" biological activity of the human organism, and, as such, is capable of phenomenological description. Habits, dispositions, or tendencies are immediately experienced and pervade the very tone and structure of immediately grasped content, thus incorporating an intentional relationship which can be phenomenologically studied from within. There is a two-fold sense of purposive biological activity running throughout pragmatism, one ontological, the other epistemic/phenomenological, both of which are more fundamental than the biological conceived as the object of scientific analysis. There is an inseparable relationship between the human biological organism bound to a natural environment and the

human knower who through meanings constitutes a world. From the context of organism-environment interaction there emerge irreducible meanings within the structure of experience. Such meanings are irreducible to physical causal conditions or to psychological acts and processes; yet they emerge from the biological, when the biological is properly understood, for the content of human perception is inseparable from the structure of human behavior within its natural setting. Thus, Dewey and Mead each stress that meanings can be expressed both in terms of the ongoing conduct of the biological organism immersed in a natural universe and in terms of the phenomenological description of the appearance of what is meant.¹⁶

The significance of dispositions or habits, not as objective ontological categories but as epistemic/phenomenological categories, is that such "felt dispositions" provide a fixity and concreteness to objective meanings which outrun any indefinite number of experiences to which they give rise. This is precisely because felt dispositions and tendencies are felt continuities which outrun any indefinite series of "cuts" or particular activities to which they give rise. As Peirce observes concerning a certain "unboundedness" inherent in dispositional modes of response as a readiness to respond to more possibilities of experience than can ever be specified: because they are, as felt continuities, "immediately present but still embracing innumerable parts . . . a vague possibility of more than is present is directly felt."¹⁷ Or, in Lewis' terms, such an absence of boundedness gives rise to our "sense of the experientially possible but not experientially now actual."¹⁸

The minimal experience always involves a durational flow, for it is filled with the rudimentary pulsations of the temporal structure of habit as anticipatory. The sense of the future involved in anticipatory activity is not an induction from past experience but is at the heart of experience in the durational present. Such a durational flow is essential for the pragmatic understanding of experience as experimental, for it involves an anticipation of a next experience to come, something for which we are waiting, an expectation set in motion by the temporal stretch of human activity. Embodied in the actuality of our meaning structures as habits of response, then, is a sense of a reality which transcends actual occasions of experience.

The temporally rooted structure of human behavior as anticipatory both requires and makes possible the creatively regulative features of meaning as habit. Such regulative features, as Dewey notes, are "no exclusive function of thought. Every biological function, every motor attitude, every vital impulse as the carrying vehicle of experience . . . is regulative in prospective reference; what we call expectation, anticipation, choice, are pregnant with this constitutive and organizing power."¹⁹ This regulative

feature rooted in activity, he further stresses, "makes possible the subject-matter of perception not as a material cut out from an instantaneous field, but a material that designates the effects of our possible actions."²⁰

Both the ontological and phenomenological dimensions of habit relate to a fundamental feature of pragmatic philosophy, the creative, interactive unity of humans with that which is independently there. Experience is this rich ongoing transactional unity, and only within the context of meanings which reflect such an interactional unity does anything emerge for conscious awareness. Experience is always experience within a world, and the things that come to awareness within the world, and the world itself -- as the outermost horizon of meaningful rapport with the independently real, as the encompassing frame of reference or field of interest of organism-environment interaction -- reflect as well this interactional unity. Lewis captures the import of this in his claim that, "It may be that between a sufficiently critical idealism and a sufficiently critical realism there are no issues save false issues which arise from the insidious fallacies of a copy theory of knowledge."²¹ The position intended can be captured neither by the traditional epistemic alternatives of realism or idealism, nor by the more recent alternatives of realism or antirealism, and foundationalism or antifoundationalism. As Peirce so well summarizes, though "everything which is present to us is a phenomenal manifestation of ourselves," this "does not prevent its being a phenomenon of something without us, just a rainbow is at once manifestation of the sun and the rain."²²

For all the pragmatists, the flux of life as it concretely occurs contains already a phenomenological dimension of human thrown-ness onto the universe through a vital intentionality constitutive of the nature of experience as experimental. Thus the being of humans in the natural universe and the knowing by humans of the natural universe are inseparably connected within the structure of experience.

Such a transactional unity is more than a postulate of abstract thought, for it has phenomenological dimensions. The interactive ontological unity of organism-environment transaction is reflected in the phenomenologically grasped features of experience. That which intrudes itself inexplicably into experience is not bare datum, but rather evidences itself as the over-againstness of a thick reality there for my activity. Thus Lewis asserts that independent factuality "does not need to be assumed nor to be proved, but only to be acknowledged",²³ while Dewey observes that experience "reaches down into nature; it has depth."²⁴ This description of the ontological dimension of experience is well evinced in Mead's claim that, in becoming an object, something has the character of "actually or potentially acting upon the organism from within itself." He calls this character that of having an inside.²⁵ Such an acting upon the organism

cannot be understood in terms of passive resistance, but as active resistance, resistance to our organic activity.²⁶ Thus, the phenomenological description of the characteristics found at the heart of experience itself reveals the incorporation within experience of an ontological dimension or ontological presence.

Pragmatism, in attempting to unite meanings freely created with the coercive thereness from which they have emerged, has at times emphasized the freely brought meanings, and at times what is coercively there. What must be emphasized and distinguished is the epistemic and ontological unity at the heart of experience as providing the corridor from one to the other. Such an interactional unity contains a two directional openness: the primordial openness of the character of experience itself opens in one direction toward the features of the human modes of grasping the independently real, and in the other direction towards the features of the independently real, for the character of experience emerges from an interaction of these two poles. In the interactional unity which constitutes our worldly experience, both poles are thus manifest: the independently there otherness onto which worldly experience opens, and the structure of the human way of being within whose purposive activity worldly experience emerges.

Abstract knowledge claims do not constitute our main access to the natural universe; concrete experience does. Yet the beginning infiltrations of meanings as embodied in human activity are immediately present in even the most rudimentary grasp within our natural embeddedness. Conversely, the semiotic relationships embodied in pragmatic meaning are not the products of the free play of linguistic signs, but rather are contoured within limits by the historically grounded dynamic forces operative in that within which we are embedded. It can be seen again that this position undercuts the dichotomy of foundationalism or antifoundationalism and, along with it, the closely related dichotomies of realism or antirealism and objectivism or relativism since each, in its own way, represents the alternatives of an absolute grounding of knowledge or skepticism. At the very heart of the temporal stretch of human behavior as anticipatory is a creativity, expressive of the experimental nature of experience, that is unified with that ontological presence while at the same time rendering its grasp in terms of any absolute grounding impossible. The unity denies the arbitrariness of antifoundationalism or antirealism or relativism. The temporally founded creativity denies the absoluteness of foundationalism or realism or objectivism. Experience, as an interactional unity of the poles of ontological presence and creative noetic activity, reflects characteristics of each but mirrors neither exactly.

The failure of philosophers to recognize this interactional "reflection" at the heart of all experience, and their resulting privileging either of the

ontologically real alone or of our selective activity alone, leads to the contemporary dichotomies of foundationalism-antifoundationalism, realism-antirealism, objectivism-relativism. And this failure involves also the failure to recognize that the categories of metaphysics must undercut the interactional unity of experience to get at the character of the independent pole such unity in part reflects. A further discussion of this natural ontological embeddedness in its primordial dimensions as the pathway to metaphysics, however, requires a return to the significance of scientific method.

If scientific method is indicative of the dynamics of all levels of intelligent activity, then it is indicative of the dynamics of philosophic activity, including metaphysical reflections. And, like science, philosophy involves a second-level system of meanings. Thus, in grasping the systematic interconnections with the structure of pragmatism, its assertions must be understood as arising from, yet going beyond in the sense of making meaningful through philosophic interpretation, the immediacies of lived experience. And, in turn, the test for the adequacy of such philosophic assertions must be found in their continual verification in lived experience. Thus, the pragmatic focus on scientific method, far from leading to an antispeculative position limited to a theory of meaning and truth, provides the direction for understanding the nature of a speculative metaphysics. As Dewey so succinctly notes in separating scientific method from scientific content in the development of philosophic systems, "The trouble then with the conclusions of philosophy is not in the least that they are the results of reflection and theorizing. It is rather that philosophers have borrowed from various sources the conclusions of special analyses, particularly of some ruling science of the day."²⁷

It has been claimed that the dynamics of everyday experience reflect throughout the dynamics of scientific method. Just as "the object" of science is an abstraction from a richer or more concrete transactional experience and hence cannot be hypostatized as absolute, so the perceptual object is likewise an abstraction from a richer, more concrete experience and hence cannot be hypostatized as absolute. The things of the everyday world, like the objects of science, are unified in terms of their function, not in terms of some underlying essence.²⁸ In opposition to the foundationalist claim, the objects that come to awareness do not exist independently of or prior to human activity, nor can we work back in experience to a direct grasp of anything that is as it is prior to its emergence within the context of experimental activity. Yet, in opposition to the antifoundationalist claim, there is incorporated in human experience a concretely rich ontological presence which constrains the interpretive nets through which it can reveal itself as a world of objects. Thus Peirce can claim that "There is no *thing* which is in itself in the

sense of not being relative to the mind, though things which are relative to the mind doubtless *are*, apart from that relation."²⁹ Or, in a similar vein, he makes the seemingly paradoxical claim that "the object of final belief, which exists only in consequence of the belief, should itself produce the belief."³⁰

The pragmatic characterization of the concrete matrix of activity which makes possible the dynamics by which the everyday perceived world emerges through the experimental activity of organism-environment interaction is a philosophic claim which helps fund with meaning the philosophical understanding of the dynamics of experience as experimental. Thus, Dewey's characterization of the concrete matrix of undifferentiated activity and James' world of pure experience, as well as his radical empiricism, are interpretive descriptions which direct the manner in which one actively gazes at everyday experience, which both emerge from and bring enriched meaningful understanding to everyday experience, and which are in turn verified by the textures of everyday experience. These features of the relation between the reflections of philosophy and its meaningful grasp of everyday experience are precisely the features previously revealed through the analysis of scientific method.

But the model of scientific method, combined with the phenomenologically grasped features of experience, indicate that a more speculative level can be reached that focuses not on the pervasive textures of experience at any of its levels, but on the pervasive features of the independently real in its character as independent of experience. This speculative endeavor, which is rooted in the previously analyzed levels of experience, and which will be seen to reflect the dynamics of scientific experimentalism, goes beyond experience to that independent element which enters into all experience. The categories of such a speculative metaphysics emerge as philosophically reflective structures or tools for delineating the interwoven pervasive textures of the concrete, independent reality which provides the concrete basis for, and which intrudes within, all experience. As second-level explanatory tools, they are a step more abstract than the second-level philosophic interpretive descriptions of primary experience. But that to which they are applied and within which they delineate is one step more concrete than primary experience, in the sense that it is the concrete basis for all levels of experiencing. It is that "thereness" upon which or within which the intentionality of purposive activity operates in giving rise to the interactional unity that is experience.

The passage from temporality as the basis of meaningful experience to process metaphysics as the basis for understanding its ontological character is operative in all the pragmatists. It is found in Lewis' claim that "The absolutely given is a specious present fading into the past and growing into the future with no genuine boundaries. The breaking of this

up . . . marks already the activity of an interested mind."³¹ Or, as Mead states in similar fashion, "At the future edge of experience, things pass, their characters change and they go to pieces."³² The role of human constitutive activity in transforming a processive, "independently there" matrix into structured things unified in terms of their function within a world is succinctly indicated in Dewey's claim that "structure is constancy of means, of things used for consequences, not of things taken by themselves absolutely."³³ Further, the "isolation of structure from the changes whose stable ordering it is, renders it mysterious -- something that is metaphysical in the popular sense of the word, a kind of ghostly queerness."³⁴ For all the pragmatists, the structures of things grasped by the knowing mind do not reach a reality more ultimate than the processive interactions of temporally founded experience, but rather, the lived-through grasp of felt temporality opening onto a processive universe is the very foundation for the emergence within experience of meaningful structure. The two directional openness of experience carries temporality from one pole to the other, from a phenomenology of worldly experience toward a process metaphysics. Thus, when James asks, "How far into the rest of nature may we have to go in order to get entirely beyond" the overflow characteristic of pure experience,³⁵ his answer is clear. One may "go into the heart of nature;" one may grasp the most pervasive textures of its most characteristic features and one will not get beyond its overflow. Humans are natural beings in interaction with a natural universe. And at the heart of nature is process. Conversely, process metaphysics reinforces the pragmatic understanding of knowledge, for as James observes, "when the whole universe seems only . . . to be still incomplete (else why its ceaseless changing?) why, of all things, should knowing be exempt?"³⁶

Like any system of meanings, the categorial system of meanings that constitutes a metaphysical interpretation must arise out of the matrix of experience, provide an organizing perspective that directs the way we approach experience, and in turn must be verified by the intelligibility it introduces into the ongoing course of experience. As Peirce indicates, metaphysical endeavor is like "that of the special sciences," except that it "rests upon a kind of phenomena with which everyman's experience is so saturated that he usually pays no particular attention to them."³⁷

Thus, James compares the method of science and metaphysics as ideal systems of thought yet allows for a disparity of content,³⁸ while Dewey points out that philosophy, like science, legitimately theorizes about experience, but can legitimately begin not with the contents of science, but with the "integrity of experience."³⁹

Pragmatists as process metaphysicians are led, in accordance with the experimental model of gaining knowledge, to a "speculative, interpretive

description," via a speculative extrapolation from experience, of what that independent reality must be like in its character as independent if it is to give rise to the primordial level of experience and to "answer to" the meanings by which it reveals itself to us. And, it should be well noted here that there is a vast difference between past philosophers' illicit reification of common sense or scientific meanings and the pragmatists' speculative extrapolation from within experience of the pervasive tones and textures of the processive "thereness" which enters into all experience. Because of the nature of the categories as creative speculative extrapolations from experience, Peirce can claim both that his metaphysics is scientific and that it is "metaphorical."⁴⁰ Indeed, the creativity of science itself can be said to contain a metaphorical dimension. The categories of metaphysics provide the illumination by which traits of "what is there" can come into focus. Such categories represent the persistent attempt to illuminate and articulate, through a creative scheme or explanatory structure, the processes and textures present within all experience.

It has been seen that the categorial contents of such a metaphysics are in no way intended as a grasp of being in some spectator vision. But they are also not merely hypothetically supposed at the beginning without our having some experiential awareness of them. Like all knowledge claims, these metaphysical claims elude the confines of the alternatives of foundationalism or antifoundationalism, of an absolute grounding of knowledge or skepticism, or, within this more specific context, of a metaphysics of presence or the demise of metaphysics. The second-level reflections of philosophy must be grounded in lived experience, and be constantly fed by this experience. Such an open system is explanation rooted in and answerable to lived experience, not the direct grasp of "being in itself." Though rooted in the lived level, it is never completely adequate to the lived level. It is open to change and development, just as all claims are open to change and development. Indeed, Peirce nowhere indicates that his categories are absolute or eternal and in fact states quite clearly that though his selection seems the most adequate, alternative series of categories are possible.⁴¹ Similarly, though Lewis speaks of metaphysics as providing the presuppositions for an understanding of the knowledge situation, he notes that though a presupposition is logically prior, the ideal of necessity must be given up.⁴²

Nor is such a presupposition known by some "higher" type of knowledge, but rather it is an interpretive structure that gains, within lived experience, "partial and inductive verification."⁴³

Because of its openness, and the conditions within which it emerges, such a system must be recognized as tentative, not certain, and thus Peirce received "the pleasure of praise" from what "was meant for

blame," when "a critic said of me that I did not seem to be absolutely sure of my own conclusions."⁴⁴ Pragmatism, then, gives rise to a new understanding of metaphysical system as an open system or explanatory structure, and to a view of explanation rooted in, rather than opposed to, a history of evolving change.

It can be seen that worldly reality at all levels is inherently perspectival.⁴⁵ Not only are perspectives real within our world, but without them there is no world. Further, our world incorporates a perspectival pluralism, for differing ways of cutting into the indefinite processive richness of reality, or prescribing contours of a world, constitute differing perspectives within the world. However, such pluralism, when properly understood, should not lead to the view that varying groups are enclosed within self-contained, myopic, limiting frameworks or points of view, cutting off the possibility of rational dialogue. What prevents this is the ontological foundations of perspectival pluralism, a point which requires further development.

Because any perspectival pluralism is rooted in the rudimentary contours of experience, and because the character of these rudimentary contours of experience are temporally rooted in the structure of human behavior as anticipatory and the nature of experience as experimental, the rudimentary contours of world reveal a common human perspectival structuring in which these features are manifest and from which a plurality of perspectives can emerge. Thus, any particular perspective opens outward onto a commonly structured field, though the articulation and development of this field through the structures of emerging perspectives may take various forms. Such an openness prevents the closure of perspectives, for all perspectives are temporally rooted in the common conditions of their very possibility.

Any derived worlds are rooted ultimately in the spatio-temporal world of everyday experience, and the perspectival pluralism within this world is rooted, ultimately, in an inarticulate, vague, rudimentary world whose contours are set by the structure of perspective required by the temporal stretch of human behavior as anticipatory or experimental. Though "the world that is there"⁴⁶ which lends its constancy to questioning and to new resolutions of problematic situations is itself a meaningful organization of the independently real, and could conceivably have been structured differently, yet this conceivably different world could not be one which belied the fundamental features of human experience.

Because the independently real, as ontological presence within experience, enters directly into interaction with our creative categories or meanings and the possibilities they allow, coherence is not a sufficient criterion for truth. There is an ontological dimension to what appears within experience which limits our meaning projections in terms of

workability. But, true knowledge, even ideally true knowledge, could not be correspondence, for the nature of our creative link with the indefinite richness of the independently real makes the relation of correspondence literally senseless. A true belief works in anticipating possibilities of experience, but works not because it adequately copies, but because it adequately "cuts into" the independently real as a function of the world or conceptual contour or paradigmatic structure that makes the belief possible. The independently real, which provides the dimension of ontological presence within experience, answers our questions and determines the workability of our meaning structures, but what answers it gives are partially dependent on what questions we ask, and what meaning structures work are partially dependent upon the structures we bring. The very possibility of truth thus emerges from the backdrop of the transformation of the indefinite richness of the "independently there" into worldly encounter. Truth is relative to a context of interpretation, not because truth is relative, but because without an interpretive context the concept of truth is meaningless.

Truth is agreement of belief with reality, but it is agreement with worldly reality, a reality which we have partially made. True beliefs "conform," but they conform to the manner in which we have "transformed" an indefinite richness into worldly encounter. Some beliefs are true and some are false, and which are true and which are false is independent of us; we cannot make them so. However, without the making, without the creative noetic activity which structures a world, there can be no beliefs, true or false. True beliefs are true before they are actually verified, but the very possibility of verification emerges from the backdrop of the transformation of processive richness into worldly encounter. Truth changes in the sense that contexts, without which we cannot talk about empirical truth, change. What was true relative to a particular context does not change relative to that context; rather, contexts within which empirical truth functions change. We discover truths about our world only because we have first prescribed contours for our world.

The truths about our world, as empirical claims, are verified or falsified in the ongoing course of experience by "hard" evidence. Such verification is always incomplete, for there is always more experience to come which could lead to the recognition that what we claim as true is, in fact, false. Truth claims relative to an interpretive context are always subject to change, because empirical verification is always incomplete, but the truth of the claim relative to a context does not change. A belief shown false was never true, though the claim to truth may have been based on justifiable evidence when made. Indeed, when a community is operating within a common system of meanings on any one issue, then investigation can tend toward an "ideal limit" of convergence. The manner of adjust-

ment between a new perspective or novel interpretation of the facts and the perspective of the interpretation previously accepted within the community is resolved by verification in the ongoing course of experience based on factual evidence, however elusive such evidence may be.

However, the prescriptive contexts within which such empirical truth operates cannot be verified or falsified by experience, for they set the structures for what is to count for experience of a particular type. They are accepted or rejected according to criteria of workability in letting us deal meaningfully with experience, but workability in this case is not a question of simple empirical verification by the "hard evidence" of facts, even of facts subject to diverse interpretations. These meaningful contexts are prescriptive of the worldly contours which make possible the facts which serve as the verification of empirical claims and hence cannot themselves be empirically verified or falsified, though their usefulness as prescriptive tools for the delineation of empirical truths may be called into question on other grounds according to accepted pragmatic criteria of workability.

When a novel perspective brings a novel set of meanings by which to delineate facts, then the method yielding a process of adjustment⁴⁷ which constitutes the ongoing dynamics within a community is not so easily resolved. For there is no longer a question of testing varying interpretations of the facts but rather there are now different perceptions of what facts there are. There are not just different interpretations to account for the facts, but there are different facts. Discussions enacted for the sake of bringing about an adjustment must stem from a generalized stance of agreement concerning what standards are to be applied in making decisions among "incommensurable" frameworks for delineating "existing facts." Such standards may be difficult to elucidate, but as implicitly operative in the process of adjustment by which conflicting meaning systems are adjudicated, they can be elicited for clarification through reflective focus on what is operative in the process of adjudication within the community of inquirers.

Further, novel perspectives may at times emerge which are "incommensurable" not only with another a priori net for the catching of experience through the determination of what kind of facts exist in the world, but which also incorporate standards and criteria and solution goals, or kinds of problems important to resolve, which are "incommensurable" with those of another perspective. Thus, there are not only different facts, but different methods, standards and criteria for determining which system of facts should be accepted. In a sense, these divergent perspectives have carved out divergent worlds⁴⁸ -- be they divergent scientific worlds or divergent ways of life, encompassing not just differing facts but differing goals, differing problems of importance, differing criteria for resolving

differences and hence differing organs for bringing about a process of adjustment. This deepest level of incommensurability, which has been shown so clearly to lie embedded in the "structure of scientific revolutions"⁴⁹ is not different from the dynamics operative in lived experience, though in science, as the structure of experience "writ large" and made explicit, it is easier to dissect. Again it can be seen that the methodology of science reflects the methodology of all experience, but each is more complex than first glance might indicate.

Yet such incommensurable perspectives, whether in science or common sense, though in a sense structuring differing worlds, cannot, by the very nature of perspective as an open horizon, be closed to rational discussion for possibilities of adjustment within one community. It has been seen that the interpretation of facts must work in anticipating the ongoing course of experience through empirical verification based on "the evidence." Diverse perspectives for delineating facts must work, better or worse, in measuring up to the standards and criteria by which the community judges them and in solving the problems which the community takes as important. And, diverse perspectives which incorporate diverse standards, criteria, and significant problems to be resolved can be discussed in terms of the ability of these diverse standards, criteria, and significant problems to resolve the potentially problematic situation which the foundational world, as it emerges from primordial experience, must resolve. This workability is something which is articulated in various ways, which is reflectively incorporated in differing evaluational criteria,⁵⁰ and which, in its ultimate ineffability, is reflected in differing traditions, differing rituals, and the emergence of differing goals as points of urgent resolution. Yet, such diverse articulations stem from a vague, elusive but real sense of the temporal anticipatory stretch of human behavior and the need for its anticipatory pulsations to mesh with the pulsations of that processive concrete richness of reality from which it has emerged, within which it is embedded, and with which it must successfully interact.

Thus, throughout many levels, truth as pragmatic is both made and found. The so-called tensions within pragmatic thought between truth as made and truth as found, between truth as changing and truth as fixed, result from focusing on diverse aspects operative within the dynamics of pragmatic truth. We create the interpretative frameworks within which beliefs can emerge and be found true or false and within which investigation can tend toward an "ideal limit." The creative intelligence involved in radical changes and shifts of interpretive frameworks is influenced by socio-cultural conditions, but is ultimately founded not in a relativistic, perspectively closed historicism, but in an ontologically grounded, perspectively open temporalism.

In any community, the eliciting of new community organs for adjust-

ment in cases of incommensurability cannot be imposed from on high by eliciting the standards of a past which does not contain the organs of resolution, but must be created by calling on a sense of a more fundamental level of activity based on a history of adjustment which is in the process of formulating and developing itself and which will yield the new community organs of adjudication in the very process of emerging as a novel present which interprets its past as the condition of its meaningful emergence. If such new organs of adjudication do not emerge, then community has broken down. The understanding of a radically diverse way of life or way of making sense of things is, then, not to be found from above by imposing one's own reflective perspective upon such diversity, but rather from beneath, by penetrating through such differences to the sense of the various ways of making sense of the world as it emerges from the rudimentary experiential field as a primordial world of "being with" in the process of ongoing adjustment, deriving its essential characteristics from beings fundamentally alike confronting a common reality.

Through the ongoing process of adjustment and the significance of the emerging present, some arguments or reasons gain vitality while others go by the wayside. Though neither are proved right or wrong, we "get over" some, but yield to the force of others. Such a "getting over" or reinforcing is based on rational discussion guided by a vague, rudimentary sense of the inescapable criteria of workability. Though the abstract articulations of workability take diverse, at times incommensurable forms, the primitive sense of workability serves, ultimately, as the ineffable but inescapable and inexhaustible well-spring of vitality from which a community surges forth through rational discussion, leaving behind reasons and arguments which have become lifeless. In this way, over the course of time, incommensurable perspectives, though not proved right or wrong, are resolved by the weight of argument as reasons and practices are worked out in the ongoing course of inquiry.

No community is constricted by closed horizons either in terms of possibilities of penetrating to more fundamental levels of community or to wider breadth of community. Indeed such an either-or is itself a false dichotomy, for expansion in breadth is at once expansion in depth, since it has been seen both that all derived communities are rooted in and open onto the "community of communities" as it emerges from rudimentary experience and that, within any derived community, the adjustment of incommensurable perspectives at any level requires not an articulated imposition from "on high" but a deepening to a more fundamental level of community. Such an adjustment, it will be remembered, involves neither assimilation of perspectives, one to the other, nor fusion of each into an indistinguishable oneness, but an accomodation in which each creatively affects, and is affected by, the other through accepted organs of

adjudication of some sort.⁵¹ The primordial world, then, as it emerges from rudimentary human experience, is a community of communities not in the sense that it contains many self-enclosed communities, but in the sense that it is that foundational community upon which the horizontal dimensions of all other communities ultimately open.

It has been seen that when a community of interpreters have a common network of meanings via which the "facts of experience" as relevant to a particular topic or issue can emerge, then investigation will indeed converge toward a common limit.⁵² However, neither truth nor facts occur atomistically. And, when a segment of interpreters experiences different facts because of a different interpretative meaning network for cutting into the rich continuity of experience, then such convergence cannot occur. The criterion for adequately cutting into the indefinitely rich matrix of possibilities of experience is workability, but workability can be established only relative to some meaningful network by which experience is "caught." Thus there can be a plurality of interpretations among varying groups of interpreters on various topics. For each group, identifiable by varying nets or perspectives for the catching of experience, is variously structuring some contours of a world. But, as has been seen, even the lines of demarcation of distinct groups of interpreters can be difficult to discern, for such differing networks are embodied in differing attitudes of response and may be present when disagreeing interpreters think their differences can be resolved by "merely collecting the facts." Thus worldly pluralism is often hidden from view in the misplaced drive toward a common conclusion based on "the evidence."

In one sense there is not only a pluralism within the world, but an absolute pluralism of worlds, for it can be said that the world within which conscious belief, questioning and discussion emerge becomes many different worlds because of new meanings, shaping new worldly contours, that emerge from varying attitudes of response to emerging problematic contexts. In another sense, pluralism within the world emerges from the backdrop of a common world, for in its deepest sense, the questioning and doubting which changed the world could only occur within a context which did not change but lent the prereflective constancy and communality of its meaning to the meaningfulness of both the problem and its resolution. Thus, in a sense we restructure the world. Yet, in another sense we restructure only within the world.

At this point it may be objected that, in spite of an ontological grounding, the novelty and diversity of perspectival pluralism lead to the view that true progress in knowledge is impossible; there is no progress but only difference. This type of criticism again presupposes false dichotomies. Perspectival pluralism as incorporating, at its deepest level, the endless activity of ongoing adjustment rather than convergence toward

final completed truth, does not involve the stultifying self-enclosurement of a relativism in terms of arbitrary conceptual schemes or an historicism in terms of present happenstance. Rather, this pragmatic view houses an open perspectivalism in which perspectives open onto the common concrete ground of their possibility. It involves a temporalism in which the ontological rootedness of perspective emerges within the context of a past which presents itself in the richness of the possibilities and potentialities of a processive present oriented toward a novel and indefinite future in a process of ongoing adjustment. Historical rootedness is at once ontological rootedness, and the temporal dimensions of both enter into the perspectival awareness which constitutes present knowledge as conditioned by, but also as a conditioning factor of, the indefinite richness of reality,⁵³ worldly encounter, and a tradition which articulates and develops its characteristic features in particular ways. These dynamics hold for all knowledge, from the common sense claims of everyday experience to the second level reflections of science and philosophy. To claim that this view involves antifoundationalism, relativism and historicism, either for metaphysical claims or for knowledge in general, of which it is a kind, severs experience from its creative, interactive unity with, and openness upon, that which is independently there. Like all knowledge claims, the metaphysical claims of pragmatic philosophy are fallibilistic, perspectival, and temporal, but nonetheless ontologically situated.

Knowledge as cumulative and knowledge as changing do not lie in opposition, but rather knowledge as changing is also knowledge as cumulative, for any novel perspective emerges from a cumulative process or history of socializing adjustment which yields enrichment of intelligibility both of the old and of the new. However, to demand of such a cumulative process that it tend toward a final unchanging truth is to misunderstand the nature of the concrete, indefinitely rich processive reality, the nature of noetic activity, and the dynamic of worldly encounter within which both are unified. Further, to the extent that any perspective is reflective of its own conditions of possibility in its ontological and historical rootedness, it advances, for in such reflection it becomes conscious of the openness of its own horizon onto a primordial community of communities and hence becomes open to the adjudicating dialogue within which it finds its own intelligibility and enrichment.

To understand one's own stance on any issue is to understand its inherently perspectival approach in transforming the rich matrix of experiential possibilities into an orderly system of facts, and the illuminating contours which other perspectives can rightfully cast upon such richness. In coming to understand the perspectival pluralism and the dynamics of adjustment constitutive of community one can at the same time come to recognize the enrichment to be gained by understanding the

perspective of the other and, as importantly, to recognize the enrichment to be gained by understanding what is implicitly operative in one's own perspectival approach. It is the foundation for such a perspectival pluralism rather than for the drive toward unanimity in final knowledge which is to be found in the emergence of a world from primordial experience as the true community of communities.

Such a view does not destroy reason but rather brings rationality down to its foundations in existence. What is destroyed is the view of rationality either as having a "once and for all" hold on truth through the absolute-ness of foundations, or as being adrift in an anchorless flow. This deepening of rationality is precisely what grounds creative intelligence in its various endeavors, even in its highest flights of speculative creativity, if only one stays attuned to its demands and open to the alternative ways of articulating this attunement.

A true community, as by its very nature incorporating an ontologically grounded temporalism and perspectival pluralism requiring ongoing growth or horizontal expansion, is far from immune to the hazardous pitfalls and wrenching clashes which provide the material out of which ever deepening and expanding horizons are constituted. As Dewey emphasizes,

Life itself consists of phases in which the organism falls out of step with the march of surrounding things and then recovers unison with it And, in a growing life, the recovery is never mere return to a prior state, for it is enriched by the state of disparity and resistance through which it has successfully passed Life grows when a temporary falling out is a transition to a more extensive balance of the energies of the organism with those of the conditions under which it lives.⁵⁴

When there is lacking the reorganizing and ordering capabilities of intelligence, the imaginative grasp of authentic possibilities, the vitality of motivation, or sensitivity to the "felt" dimensions of existence, all of which are needed for ongoing reconstructive horizontal expansion, then irreconcilable factionalism results. A community, then, to maintain itself as a community, requires the recognition that intellectual responsibility is not fundamentally the transmission of information but rather development of the skills of experimental inquiry which, in the fullness of its proper functioning, incorporates all of the above capabilities. Thus, the development of intellectual responsibility requires an understanding of the educational process as concerned with the education of the whole person.

Education must provide the skills of experimental inquiry needed not just for the adequate exploration of specific subject matter within a given context, but for the possibility of the interrelated ongoing reconstruction and expansion of vision, including the reconstruction of the institutions

and practices of the community, and indeed, the very organs of adjudication for the communicative adjustments which make possible such ongoing reconstructions and expansions. To accomplish this goal, education must cultivate a deepening attunement to the "felt" dimensions of experience, to diverse ways of making sense of the world and the diverse frameworks this involves, and to the general pulse of human existence in which the diversity is ultimately rooted, and toward the expansion and development of which expansive reconstruction should be shaped. This in turn is not possible without an historical awareness which itself is not a passive recovery but a creative reconstruction of a present oriented toward a future. This creativity involves the function of the play of imagination, but this play can extend and reintegrate experience in productive ways only if it is not capricious but rather seizes upon real possibilities which a dynamic past has embedded in the changing present.

Such education of the whole person provides education for life in a true community, for it provides the tools for ongoing adjustment or accommodation between the new and the old, the precarious and the stable, the novel and the continuous, creativity and conformity, indeed, self and other. Further, it nourishes the common "end" which must characterize a community, even a highly pluralistic one, for it helps bring to fruition the universalizing ideal of ongoing self directed growth. This ideal, and the ongoing reconstruction it incorporates, involves the dynamics of experimental method embedded in the very life process, and the proper functioning of experimental method requires the proper nourishment of the whole person, for the proper functioning of experimental method is precisely the artful functioning of human experience in its entirety. The flourishing of this method through the educational nourishment of the full dimensions of human existence is crucial for the formation of the intellectual responsibility necessary for the ongoing dynamics constitutive of all communities, including the community of philosophic inquirers.

1. By the term 'pragmatism' in this essay is always intended the position of the classical American pragmatists. That these philosophers provide a unified perspective is assumed in this essay, but this claim is defended at some length in my book, *Speculative Pragmatism* (Amherst, Massachusetts: The University of Massachusetts Press, 1986). Paperback edition, (Peru, Illinois: Open Court, 1990).
2. Causal connections are always expressed as relations among particular types of objects or events, and the nature of the events or objects being connected enters into the very understanding of the nature of the causal relationship sustained. This focus on scientific method as the method of causal analysis is thus still not purified of content and represents

a lingering influence of modern world-view thought. This brief sketch of the distinction between scientific method and scientific content within pragmatic philosophy, as well as the ensuing discussion of its understanding of scientific method, is examined and supported in some depth in *Speculative Pragmatism*.

3. G. H. Mead "The Definition of the Physical," *Mead: Selected Writings*, ed., A.J. Reck (New York: Bobbs-Merrill Co., 1964).
4. John Dewey, *Experience and Nature*, vol.1 (1981), *The Philosophy of John Dewey: The Later Works*, ed. Jo Ann Boydston (Carbondale and Edwardsville: Southern Illinois University Press, 1981-), p. 37.
5. Dewey, *Experience and Nature*, p. 37.
6. William James, *The Principles of Psychology*, 2 vols. (1981), *The Works of William James*, ed. Frederick Burkhardt (Cambridge: Harvard University Press, 1975-), 2pp. 1232-1234.
7. Dewey, *The Quest for Certainty*, vol. 4 (1984), *The Later Works*, pp. 163-165.
8. For example, see James, *Principles of Psychology*, 2, p. 961; Peirce, *Collected Papers*, vols. 1-6, ed. Charles Hartshorne and Paul Weiss (Cambridge: Belknap Press of Harvard University, 1931-1935); vols. 7 and 8 ed. Arthur Burks (Cambridge: Harvard University Press, 1958), 7.498 (Hereafter cited using only two part conventional notation).
9. Peirce. 5.384.
10. Dewey, "Does Reality Possess Practical Character?," vol. 4 (1977). *The Philosophy of John Dewey. The Middle Works*, ed. Jo Ann Boydston (Carbondale and Edwardsville: Southern Illinois University Press, 1976 - 1982): pp. 137-138.
11. Dewey, *Essays in Experimental Logic* (New York: Dover Publications, 1916), p. 86.
12. Peirce, 5.181 (Peirce's technical term for such creative activity is abduction. This shading of scientific abductions into everyday perceptual claims is not a continuity of content organized but of method of organization.)
13. G. H. Mead, *Philosophy of the Act* (Chicago: University of Chicago Press, 1938), p. 25.
14. C. I. Lewis, *Mind and the World Order* (New York: Dover Publications, 1929), Appendix A, esp. pp. 395-397.
15. Science is detached from our world of common sense engagement because its objects are detached abstractions from it. Scientists, however, are significantly and actively engaged with their world of scientific objectivities, though such engagement is more deliberately controlled and more narrowly focused.
16. Dewey, *The Quest for Certainty*, p. 142; "The Experimental Theory of Knowledge," *The Middle Works*, ed. Jo Ann Boydston (Carbondale and Edwardsville: Southern Illinois University Press, 1976-1983), vol. 3, pp. 114-115. Mead, *Philosophy of the Act*, pp. 115-116.
17. Peirce, 6.138.
18. Lewis, *An Analysis of Knowledge and Valuation* (La Salle, Illinois: Open Court, 1946), p. 17. Thus, even the most rudimentary conscious experience, according to Dewey, "contains within itself the element of suggestion or expectation." "The Existence of the World as a Logical Problem," *The Middle Works*, Vol. 8., p. 9.
19. Dewey, "Experience and Objective Idealism," *The Middle Works*, vol. 3, p. 136.
20. Dewey, "Perception and Organic Action," *The Middle Works*, vol. 7, p. 13. Thus Peirce notes that within such a temporal flow, "Feeling which has not yet emerged into immediate consciousness is already affectible and already affected. In fact this is habit by virtue of which an idea is brought up into present consciousness by a bond which had already been established between it and another idea while it was still in futuro" (6.141). As James states, we can hardly get hold of an impression at all in the absence of an anticipation of "what impressions there may possibly be." *Pragmatism*, (1975), *The Works of William James*, p. 119.

21. Lewis, *Mind and the World Order*, p. 194.
22. Peirce, 5.283.
23. Lewis, *An Analysis of Knowledge and Valuation*, p. 361.
24. Dewey, *Experience and Nature*, pp. 12-13.
25. Mead, *Philosophy of the Present*, p. 137.
26. *Ibid.*
27. Dewey, *Experience and Nature*, p. 37.
28. For a good analysis of this point, see Dewey's discussion of "the table." *The Quest for Certainty*, pp. 189-190.
29. 5.311 (Emphasis added).
30. 7.340.
31. Lewis. *Mind and the World Order*, p. 58.
32. Mead, *Philosophy of the Act*, p. 345.
33. Dewey, *Experience and Nature*, pp. 64-65.
34. *Ibid.*, p. 65.
35. James, *A Pluralistic Universe*, (1977), *The Works of William James*, p. 129.
36. James, *Essays in Radical Empiricism*, (1976), *The Works of William James*, p. 37.
37. Peirce, 1.282; 6.2.
38. James, *Principles of Psychology*, 2, p. 671.
39. Dewey, *Experience and Nature*, pp. 37, 19.
40. Peirce, 5.119. Peirce characterizes our knowledge of "the premises of nature" as an "imaginative" comparison with fundamental features of experience.
41. Peirce, 1.525; 1.526.
42. Lewis, "The Structure of Logic and Its Relation to Other Systems," *The Collected Papers of C. I. Lewis* ed. John Goheen and John Mothershead Jr. (Stanford: Stanford University Press, 1970), p. 378.
43. *Ibid.*
44. Peirce, 1.10.
45. As was seen earlier, 'world' is not to be understood as a collection of "objectively existing objects" but as the encompassing frame of reference or field of interest of organism-environment interaction.
46. This phrase is taken from G. H. Mead's philosophy.
47. Such adjustment involves neither assimilation of perspectives, one to the other, nor fusion of each into an indistinguishable oneness, but an accommodation in which each creatively affects, and is affected by, the other through accepted organs of adjudication of some sort.
48. This is the most fundamental sense of incommensurability in Thomas Kuhn's *The Structure of Scientific Revolutions*, Second Edition (Chicago: The University of Chicago Press, 1970).
49. *Ibid.*
50. Indeed, even incommensurable criteria for determining truth must be judged by their ability to work within the framework within which they emerge as criteria.
51. See endnote 47.
52. This convergence is emphasized by Peirce.
53. The self-directed organism incorporates being within this indefinitely rich reality as well as encounter with it through the intentionally grounded mediation of world. Worldly possibilities include both noetically based possibilities and possibilities of a processive, indefinitely rich universe. Human activity enters into the changes of both types of possibilities, for it belongs to both.
54. *Art As Experience*, pp. 19-20.