Dewey's Metaphysics
Boisvert, Raymond

Published by Fordham University Press


For additional information about this book
https://muse.jhu.edu/book/63960

For content related to this chapter
https://muse.jhu.edu/related_content?type=book&id=2290049
III

NATURALISM
Dewey’s Objections to Traditional Doctrines

1. INTRODUCTION

The previous chapter dealt with works that, because of Dewey's exceptionally long career, represent only the middle stage in the development and exposition of his thought. He was already fifty-seven in 1916 when Essays in Experimental Logic appeared, but it was not until 1938, when he was seventy-nine, that Logic: The Theory of Inquiry was published. The next three chapters will deal with major works of his which appeared during the intervening years. These books include Experience and Nature, published in 1925, The Quest for Certainty, the Gifford Lectures of 1929, and Art as Experience, brought out in 1934. Together with Logic: The Theory of Inquiry, which will be studied separately in Chapter 7, they represent the most profound articulation of Dewey's naturalistic ontology.

Unlike Chapter 7, which will be devoted exclusively to one book, the following three chapters will not each be given over to the analysis of a single text. Instead, the three books published between 1925 and 1934 will be studied together, thematically. During the time he prepared these books, Dewey was attempting to work out a unified ontological position. Because of this, the texts complement each other, and Dewey can best be understood by examining certain issues as they are expressed in all three works. The focus of attention will remain the same as in the previous chapter. We shall be examining Dewey's writings to discern exactly what his position is with respect to an ontology of formed entities. A prominent characteristic of these books is the rejection of what he considers to be the traditional metaphysical view that recognizes the importance of forms. He realizes that the problem that occasioned the need to speak of forms is still a valid one, but disagrees with the kind of
solutions undertaken by traditional (i.e., Greek and medieval) thinkers.

Because of this sweeping opposition, an awareness of the weaknesses and errors Dewey finds in the traditional doctrines of this kind is crucial in piecing together the constructive doctrine he propounds. A major portion of this chapter, therefore, will be given over to examining the objections Dewey has to earlier ontologies. This examination will occupy the middle part of the chapter. I shall begin by reviewing a traditional distinction—that between techne and physis—which is essential to an understanding of Dewey, especially in relation to earlier naturalistic thinkers. Next, I shall examine his works to elucidate his objections to other theories of form. These will come mostly from Experience and Nature and Art as Experience. Finally, I shall deal with certain sections of The Quest for Certainty which provide a good link with both the discussions of idealism in the last chapter and the constructive analyses to come in subsequent chapters.

2. Techne and Physis

We saw in the previous chapter that, continuing an insight from his idealistic years, Dewey wishes to emphasize the active role of the individual in inquiries. Knowledge is something arrived at after investigation and experimentation. The kinds of examples Dewey selects as illustrations are fully in line with such considerations. We know that the physician is a favorite of his, and examples from industry detailing the manufacturing of a certain product or artifact are also plentiful. All these instances involve human participation as a factor effecting an alteration in the material being investigated. Dewey’s model for his philosophical theory is human activity.

This distinguishes him immediately from a Greek thinker such as Aristotle, for whom “nature” and natural activity are paradigmatic. The traditional distinction between techne and physis—“art” and “nature,” respectively—will be helpful in describing how different the two attitudes are. As major distinguishing characteristics, they divide all entities into two main groups: those that are produced by themselves (by their own kind) and those whose source of production is outside them (in other kinds of beings). Aristotle set forth the distinction in his Metaphysics: “For things come into being
either by art or by nature or by luck or by spontaneity. Now art is
a principle of movement in something other than the thing moved,
nature is a principle in the thing itself (for man begets man), and
the other causes are privations of these two."^3 Not only does this
type of classification allow us to provide an ontological organization
into two sorts of beings, but it also provides the framework within
which we can point to a decisive difference between Dewey and an
earlier naturalistic view represented by Aristotle.

We know that there was a prominent current of Aristotelian
thought in Dewey's philosophical formation at Johns Hopkins.
Dewey's teacher George Morris, under the influence of Trendelen-
burg, had taught an "Aristotelized" Hegel.4 Dewey, in his book on
Leibniz, chose to compare Leibniz to Aristotle, and provided a fa-
vorable view of both thinkers. It is not surprising, considering this
background, that there should be certain parallels between the posi-
tions of this Greek thinker and Dewey. I shall pursue some of these
in the next chapters. In recognizing these similarities, however, an
interpreter must be clear on just how the two thinkers are alike and
how they are different. Unless the distinction between *techne* and
*physis* is made explicit, and the implications for the two thinkers
drawn out, an interpreter might forge a closer alliance between the
two philosophers than actually existed. Broadly speaking, the differ-
ences between these two men can be characterized in the following
manner: Aristotle tended to emphasize nature (*physis*), whereas
Dewey tended to emphasize production (*techne*).

Aristotle's most basic philosophical category, *ousia*, a being or an
entity, refers primarily to natural existents. For instance, the state-
ment in the *Metaphysics* that "the something which they ["the nat-
ural comings to be"] come to be is a man or a plant or one of the
things of this kind, which we say are substances [*ousiai*] if anything
is . . ."^5 indicates that the fundamental model Aristotle is working
with is based on nature as the source of its own being and develop-
ment. Nonetheless, Aristotle does not overlook *techne*. In discussing
knowledge, he argues that there are three kinds. The first, as might
have been expected, is *theoretical*, and aims at understanding. The
other kinds, *practical* and *productive*, deal with the important role
of *techne* in human life. Practical knowledge involves activities con-
cerned with doing; productive knowledge, those involving making.6
Even though Aristotle admits these three kinds of knowledge, he
NATURALISM

does not consider them to be of equal value. The most prominent
good for man, according to Aristotle, is to be found, not in activity
that transforms the world, but in contemplation aimed at understanding it.\footnote{7}

Dewey, on the other hand, builds his theory on a paradigm of
productivity. It seems to me that he would not have any real quarrel
with Aristotle's breakdown of knowledge into three kinds, but he
would disagree about the subordination of productive to theoretical
knowledge. Dewey does not deny the value of purely theoretical un­
derstanding,\footnote{8} but in his view the undue emphasis on that kind of
knowledge too readily leads to the mistaken analysis that posits a
passive knower who merely contemplates the spectacle of beings set
before him. Against this view, Dewey stresses that knowledge is pri­
marily productive knowledge because the subject matter investi­
gated is manipulated so as to produce a certain result.

A good starting point for an understanding of the Deweyan ap­
proach is, not unexpectedly, Aristotle's analysis of art. In a detailed
explanation of art, Aristotle stresses the importance of "making."

Now since architecture is an art and is essentially a reasoned state
of capacity to make, and there is neither any art that is not such a
state nor any such state that is not an art, art is identical with a
state of capacity to make, involving a true course of reasoning. All
art is concerned with coming into being, i.e., with contriving and
considering how something may come into being which is capable
of either being or not being, and whose origin is in the maker and
not in the thing made. ... Making and acting being different, art
must be a matter of making, not of acting.\footnote{8}

This description of the link between \textit{techne} and productivity,
especially since it focuses on the course of reasoning requisite for
success, applies most accurately to Dewey's vision of philosophy. We
have already seen that in his first works on logic one of his favorite
examples was that of a doctor. Dewey's point was that the doctor is
not satisfied with the simple contemplation of patients and their
symptoms. Physicians must use their training and intelligence to
alter the situation which confronts them. Even the very term
"truth" undergoes a change of meaning within this theory. No
longer is it the \textit{adequatio intellectus ad rem} of the Aristotelian
tradition; now it is contingent upon the results of the making or
transformation effected by the human agent. Ideas are prospective; their validation depends on the consequences of the activities they engender. A physician's diagnosis is true if the regimen followed as a result of the diagnosis leads to the restored health of the patient.

Another of Dewey's illustrations comes from industrial production. In the *Essays in Experimental Logic*, through an example which quite clearly illustrates that contemplation of natural beings is in no sense an epistemological ideal for him, Dewey stresses that the object and objective of thought go together. “Let us take the sequence of mineral rock in place, pig iron and the manufactured article, comparing the raw material in its undisturbed place in nature to the original *res* of experience, compare the manufactured article to the objective and object of knowledge, and the brute datum to the metal undergoing extraction from raw ore for the sake of being wrought into a useful thing” (MW X 341). The object of knowledge in this case is clearly not the mineral in its natural state, but a product into which it has been transformed by human intervention, by art or *techne*.

Dewey explicitly recognizes the difference in emphasis between his own thought and that of the Greeks in *The Quest for Certainty*.

When the things which exist around us, which we touch, see, hear and taste are regarded as interrogations for which an answer must be sought (and must be sought by means of deliberate introduction of changes till they are reshaped into something different), nature as it already exists ceases to be something which must be accepted and submitted to, endured or enjoyed, just as it is. It is now something to be modified, to be intentionally controlled. It is material to act upon so as to transform it into new objects which better answer our needs. Nature as it exists at any particular time is a challenge, rather than a completion; it provides possible starting points and opportunities rather than final ends.

In short, there is a change from knowing as an aesthetic enjoyment of the properties of nature regarded as a work of divine art, to knowing as a means of secular control—that is, a method of purposefully introducing changes which will alter the direction of the course of events [QC 80–81].

It is no small wonder that this attitude, emphasizing, as it does, the practical and the productive, led Santayana to suggest that if Sparta and Carthage had produced philosophies, they would have been
acknowledged to Dewey's. Nature, for Dewey, is a "challenge"; the natural beings which surround us are "interrogations." The key terms summarizing his position are "reshaping," "modification," and "control." Contemplation—"esthetic enjoyment," in Dewey's phraseology—is explicitly removed from its place as the single consummation of intellectual inquiry. In its stead, Dewey suggests the Baconian ideal of the modification and transformation of nature in order to subject it to human control. The emphasis on this ideal, on this attitude toward nature, is what decisively separates Dewey's thought from that of the earlier naturalist, Aristotle. This point is the aim of the present section. I shall on many occasions compare the doctrines of Dewey and Aristotle. Each time a similarity is pointed out, it will be necessary to remember that the comparisons can go only a certain distance since one thinker will be referring basically to beings in their natural state and the other will be dealing with products of human craft.

3. Change, Permanence, and the Need for Philosophy

No one who has studied the history of philosophy can fail to be impressed with the diversity of opinion with respect not only to established systems but even to so basic an issue as the meaning of philosophy itself. Beyond this diversity, however, there stands a similarity in the impetus to philosophize, in the source from which the need to think philosophically arises. Dewey recognizes this source, and gives expression to it in *Experience and Nature*. He says there that it is the "intricate mixture of the stable and the precarious, the fixed and the unpredictably novel, the assured and the uncertain, in existence which sets mankind upon that love of wisdom which forms philosophy" (EN 55). This quotation does not give us any indication as to how Dewey will resolve this rather vexing problem, which has been with philosophy since its inception. Yet, in the next few pages, and in *Art as Experience*, he is quite careful to point out that a great deal more than just philosophy itself depends on the "intricate mixture" of which he has just spoken. The very possibility of both moral and artistic experience is due to just such a complex state of affairs. "A purely stable world permits of no illusions, but neither is it clothed with ideals. It just exists. To be good is to be better than; and there can be no better
OBJECTIONS

except where there is shock and discord combined with enough assured order to make attainment of harmony possible” (EN 57). Without thirst, we would not know the satisfaction of a refreshing drink, and without an ever-shifting human predicament, there would be no occasion for fastening onto the better conditions and relationships that are attainable within that predicament. As far as Dewey is concerned, change alone allows for no solutions, while permanence alone provides no problems.

A like situation obtains with regard to artistic considerations. In *Art as Experience* Dewey suggests that the denial of either the fluctuating or the stable elements of reality would be deadly for aesthetic experience.

There are two sorts of possible worlds in which esthetic experience would not occur. In a world of mere flux, change would not be cumulative; it would not move toward a close. Stability and rest would have no being. Equally is it true, however, that a world that is finished, ended, would have no traits of suspense and crisis, and would offer no opportunity for resolution. . . . Because the actual world, that in which we live, is a combination of movement and culmination, of breaks and re-unions, the experience of a living creature is capable of esthetic quality [AE 22].

What Dewey is concerned with is providing a description of the actual world of human experience. It is a world in which the need for philosophy is evident, and one in which aesthetic and moral experience are obvious facts. In each case, Dewey’s statements clearly acknowledge the presence of both change and permanence, though he does not provide any clues as to the relationship he sees as obtaining between them. He is careful to insist, as we have seen, that an accurate representation of existence will include both. In fact, if we refer to the quotation from *Experience and Nature* at the beginning of this section, and add the sentence which immediately follows it in the text, we get an explicit statement of a path Dewey wishes to avoid: “Yet too commonly, although in a great variety of technical modes, the result of the search is converted into a metaphysics which denies or conceals from acknowledgment the very characters of existence which initiated it, and which give significance to its conclusions” (EN 55).

This rejected approach denies one of the factors of existence at the expense of the other. Since Dewey argues that the factor denied
is most often change, flux, or contingency, he regards the ontology of form which results from such a denial as an especially common and serious error. If we are to reconstruct a theory of formed existents within his own philosophical horizons, we must take the preliminary step of examining what form is not.

Dewey's analysis of various theories of form asks the questions "how" and "why." How, or by what fallacious turn of reasoning, can certain thinkers fail to recognize the significance and pervasiveness of the changing aspects of reality? Why would anyone remain comfortable with an investigation that would lead to these conclusions? Let us begin with the question "why."

Dewey argues that the denial that process or change is of the same significance as the permanent stems from three causes. (a) To survive effectively humans need to control their environment. Control means the minimization of the haphazard, and the paying of maximum attention to the stable and the repetitive. (b) The analysis of the actual world has sometimes been based on an analogy that is not completely accurate, the analogy with art. This kind of undertaking was especially prominent in Greek thought. (c) Since Aristotle's approach was biological and grammatical, it was natural for him to recognize the obvious fact that natural beings fall into certain kinds or species. On this basis he erected an essentialism that was bequeathed to European philosophy by the thinkers of the Middle Ages.

3.1. Permanence and Social Need

Dewey does not argue that other, earlier, thinkers did not recognize the reality of change. Indeed, he suggests that the very fact of change, permeating so much of experience, was one important factor that led individuals to seek refuge in the permanent.

If classic philosophy says so much about unity and so little about unreconciled diversity, so much about the eternal and permanent, and so little about change (save as something to be resolved into combinations of the permanent), so much about necessity and so little about contingency, so much about the comprehending universal and so little about the recalcitrant particular, it may well be because the ambiguousness and ambivalence of reality are actually so pervasive. Since these things form the problem, solution is more
OBJECTIONS

apparent (although not more actual), in the degree in which whatever of stability and assurance the world presents is fastened upon and asserted [EN 46].

Dewey does not mention agriculture, but this activity serves as a good example to illustrate his position. A calendar that records the recurrence of the seasons is essential to a successful harvest. Communities are dependent on the predictable sequence of spring, summer, fall, and winter, in order that they may prepare for planting seeds at the most appropriate time. Although each day is unique, and no two springs or summers exactly replicate each other, their temporal relationship involves a certain kind of permanence. This permanence must be recognized and fastened on if the community is to produce enough food to ensure its survival. 12

But this fastening on one particular aspect of experience Dewey considers to be the source of a serious philosophical error. It is not an error in itself. It becomes one only when the context in which the focusing occurs is forgotten. The result is that the permanent aspects are isolated and accorded independent existence.

But the demand and the response which meets it [the permanent] are empirically always found in a special context; they arise because of a particular need and in order to effect specifiable consequences. Philosophy, thinking at large, allows itself to be diverted into absurd search for an intellectual philosopher’s stone of absolutely wholesale generalizations, thus isolating that which is permanent in a function and for a purpose, and converting it into the intrinsically eternal, conceived either (as Aristotle conceived it) as that which is the same at all times, or as that which is indifferent to time, out of time [EN 32–33].

Permanence, as in the case of a calendar predicting the return of spring, is always a stable aspect of a world in flux, isolated because of a certain “function” and for a definite “purpose.” Viewing the permanent outside of the needs which brought it forth and the situation in which it is discovered is, for Dewey, a philosophical simplification (EN 33)—and a dangerous one because the actual circumstances in which humans find themselves and through which further solutions to additional problems will be found are now viewed inaccurately. Dewey’s first point, then, is that it is quite easy to understand why people chose to concentrate on the elements of
stability in experience. Such a choice, however understandable, incorporates a serious limitation: the removal of the permanent from the context that occasioned and suggested it.

3.2. Art and Forms

Dewey’s second explanation deals with art. He suggests that one interpretive scheme the Greeks were very fond of using in dealing with nature was to compare it to an artistic creation. This kind of analogy led them so readily to accept form as the key concept in the understanding of nature, and acceptance of form in this context had certain important implications. First of all, form stood for the fixed aspects of nature, and, secondly, invention, novelty, and change were interpreted as of less importance than form. Just as Dewey claims that the permanent in general provided a refuge from the vagaries of actual experience, so he argues that the stable beauty of artistic creation offered a similar refuge on a different level.

Greek philosophy as well as Greek art is a memorial of the joy in what is finished, when it is found amid a world of unrest, struggle, and uncertainty in what, since it is ended, does not commit us to the uncertain hazards of what is still going on. Without such experiences as those of Greek art it is hardly conceivable that the craving for the passage of change into rest, of the contingent, mixed and wandering into the composed and total, would have found a model after which to design a universe like the cosmos of Platonic and Aristotelian tradition [EN 77-78].

Dewey does not merely suggest that this emphasis on stability was common to both philosophy and art. He argues that there is a causal link between the two. Greek philosophy glorified form because Greek art did the same.

Form was the first and last word of philosophy because it had been that of art; form is change arrested in a prerogative object. It conveys a sense of the imperishable and timeless, although the material in which it is exemplified is subject to decay and contingency. It thus conveys an intimation of potentialities completely actualized in a happier realm, where events are not events, but are arrested and brought to a close in an eternal self-sustaining activity [EN 78].

Dewey’s second reason is not altogether different from his first. In both cases the motivating force is the need to escape contingency.
OBJECTIONS

What has been presented are two varieties of escape. The former involved the need for controlling the environment, an attitude essential to survival. The second stressed the use of art as a solace from confusion and caprice.\textsuperscript{13}

But a novel element is introduced in the discussion of this second reason. That new element has to do specifically with the characterization of form as a separate, unchanging pattern to which the entities of nature correspond. According to Dewey, the philosophers of nature in ancient Greece did not view forms as flexible and dependent on the actual course of natural events because in art the forms were not thought of as dependent on the inventiveness of the artist. They were models fixed by tradition. They were, Dewey argues, “objectively given” and had only to be “observed and followed” (EN 79).

What Dewey finds in Greek art is therefore not only a reason that explains the Greek fascination with the fixed and the final, but also the particular characterization of this fixed aspect of reality, which is form. Form is not malleable, flexible, or susceptible to any kind of alteration because it is independent in two senses: it is independent of the artist, and it is independent of nature. The artistic creation and the natural event stand as approximations of their fixed models. Any deviation from the model is discouraged in art and impossible in nature.

3.3. Biology and Language

The final reason in Dewey’s explanation for the enduring allure of the permanent in philosophy deals specifically with Aristotle. Dewey is both attracted to and critical of the Greek thinker. He claims that more than any other philosopher of the classical era Aristotle approached the promulgation of a doctrine that would have avoided the kinds of errors we have just been discussing. However, Dewey is convinced that Aristotle did just that, merely came close to an accurate position. He did not, in Dewey’s view, go far enough. Two factors contributed to the limitations inherent in Aristotle’s analysis. One was his interest in biology; the other, the grammatical model on which his theory of being was based.

Dewey emphasizes again and again his own version of the coincidence of opposites, and bemoans the fact that any thinker would so
emphasize one side of an opposition that the other would be forgotten. "Qualities have defects as necessary conditions of their excellencies; the instrumentalities of truth are the causes of error; change gives meaning to permanence and recurrence makes novelty possible" (EN 47). This very tension between opposites is what characterizes the experience of being human in the world. For it is not a world of mere existence, which it would be if these tensions were to disappear. It is a world, rather, of satisfactions and disappointments, truth and error, recurrence and novelty. What Dewey is arguing is that these pairings are correlative. If one is present, then so must the other be (at least potentially). If, for example, one never utters a statement in the form of a proposition, then one will never be in error. But, at the same time, the possibility of truth is excluded. As Dewey points out, the very instrumentalities of truth are the sources of error. If the search for truth is undertaken, then the danger of error becomes real. The two are present together or not present at all. The fact of correlativity, which Dewey implies here, will be crucial in developing a defensible theory of formed entities.

These facts have not always been overlooked in the history of philosophy, but Dewey thinks that they had not always been accorded the kind of importance they should receive. It is in this context that Dewey admits some positive content in Aristotle's position. He thinks that the recognition of the interdependence of defect/excellence, truth/error, change/permanence, and recurrence/novelty should be regarded as "fundamentally significant for the formation of a naturalistic metaphysics." Dewey asserts that Aristotle's metaphysics came close to recognizing and developing this insight. However, to his discredit, Aristotle was unwilling to surrender his "bias in favor of the fixed, certain and finished" (EN 47). As we saw above, Dewey attributes this failure to Aristotle's preoccupation with biology and to his uncritical acceptance of a parallel between grammatical structure and ontological fact. I will deal with each of these explanations separately.

First of all, Aristotle was a student of nature, and, as such, had ample opportunity to examine the complexity and diversity of natural beings. But even with this kind of observation in the background, Dewey claims, Aristotle stuck fast to the type-form analysis, which was inherited from Greek art. "A type-form had no separate being; but, being embodied in particulars, it made them an intrin-
sically unified and marked out class, which as a class was ungenerated and indestructible, perfect and complete” (EN 169). Dewey goes on to say that Aristotle’s theory of type-forms can no longer be valid in the light of modern science, but in the Greek world it was natural to interpret biological observations in this way.¹⁴

This kind of classificatory scheme, which Dewey explains as a normal reaction to the immediate observation of nature, is viewed as being buttressed in Aristotle by a doctrine of categories based on the grammatical model. Dewey is referring here to the ten categories, the most fundamental of which is substance. It is a simple matter to see how Aristotle’s doctrine of categories can be blended with the biological doctrine of type-forms. Just as the particular, individual, characteristics of a living being are treated as secondary and unimportant with regard to a scheme of classification, so the system of categories stresses one as fundamental and the others as “accidental.” As far as Dewey is concerned, this means that although Aristotle approached a pluralistic theory of existence, the positive content of such a doctrine was mitigated by a rigid grammatical organization.

His [Aristotle’s] philosophy was closer to empirical facts than most modern philosophies, in that it was neither monistic nor dualistic but openly pluralistic. His plurals fall however, within a grammatical system, to each portion of which a corresponding cosmic status is allotted. Thus his pluralism solved the problem of how to have your cake and eat it too, for a classified and hierarchically ordered set of pluralities, of variants, has none of the sting of the miscellaneous and uncoordinated plurals of our actual world [EN 48].

The same theme is repeated again and again in Dewey. Aristotle avoids some errors of modern, dualistically inclined, philosophers because his methodology is empirical and his solution pluralistic. Nonetheless, his tendency to emphasize the fixed and the final at the expense of the truly flexible, the unchanging rather than the protean, remains a serious limitation for the Greek thinker. This evaluation notwithstanding, Dewey seeks to understand his position in terms of cultural, temporal, and linguistic factors. He does not criticize Aristotle for not being ahead of his time, but rather shows how easily one could develop a doctrine like Aristotle’s if the context in which the doctrine germinated is understood.
As I have attempted to demonstrate, this is Dewey's attitude toward the entire tradition which does not sufficiently emphasize the importance of flux. By referring either to cultural necessity or to artistic and scientific climates of opinion, Dewey is able to explain the extraordinary durability of the view he is seeking to modify. The third branch of this explanation, that dealing with Aristotle, is in a way a recapitulation of the other two. The first reason grew out of the need for control over the environment. The third reason develops from the need for intellectual control. Classification is necessary if one is to get beyond the immediate contact with facts. This realization was certainly well recognized by Aristotle, whether in biology or in language. In dealing with art, Dewey gave clear expression to the doctrine of form that he was rejecting. This was form as an independent and unchanging reality. In spite of Dewey's recognition that Aristotle's forms have no separate existence, the fact remains that he considers the Aristotelian forms as changeless and therefore unacceptable.

3.4. Selective Emphasis
This threefold exploration of reasons why philosophy followed a mistaken path does not make explicit the fallacy which Dewey believes was committed in each case. When Dewey analyzes the question "why" he is a most generous commentator, allowing his reader to understand the factors which led to the error. But when he turns to a discussion of the "how" he becomes a much sharper critic of this philosophical heritage, accusing other thinkers of engaging in an "absurd search" (EN 30), of exhibiting "cataleptic rigidity" (EN 31), and of committing "the philosophical fallacy" (EN 34).

What exactly does Dewey mean by these charges? Essentially, he believes that earlier philosophers fell into the error of hypostatizing partial aspects of analysis. He suggests that the results of intellectual abstraction were transformed into independent existents. This kind of procedure he calls the philosophic fallacy, and his understanding of it is framed within a discussion of what he labels "selective emphasis." We noted earlier how Dewey presents his own version of a coincidence of opposites. Selective emphasis is another instance of opposites bound together. Any intellectual operation uses this procedure, but it is at the same time a common source of error.
The world in which we live provides a dizzying array of phenomena on which we can focus our attention. Since our approach to any issue, as Dewey points out, is usually instigated by a problematic situation, and since not every element of experience is crucial to the particular problem at hand, some selection from the diversity is demanded. Oliver Wendell Holmes, Jr., in describing the facts a lawyer would want to present in court, provides a good illustration of the point Dewey is trying to make: "The reason why a lawyer does not mention that his client wore a white hat when he made a contract . . . is that he foresees that the public force will act in the same way whatever his client had upon his head." The problematic situation in this instance is the need to make a judicial decision. To make that decision successfully, judges cannot allow themselves to be overwhelmed by a mountain of irrelevant, albeit real, detail. There must be some selection, or selective emphasis, if there is to be success in resolving the issue.

Dewey argues that this kind of selectivity is not only common but necessary in any intellectual endeavor. "Selective emphasis, with accompanying omission and rejection, is the heart-beat of mental life. To object to the operation is to discard all thinking" (EN 31). Selective emphasis is successful when the individual involved in the selection is mindful that the elements fastened on are not in themselves isolated. They are part of a greater context. In science as well as in ordinary life, the wider context is generally kept in mind. "But in ordinary matters and in scientific inquiries, 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 and purpose in hand" (EN 91). Philosophers, however, seem especially prone to let the context dissolve away as they focus on selected elements: "But in philosophies, this limiting condition is often wholly ignored. It is not noted and remembered that the favored subject-matter is chosen for a purpose and that what is left out is just as real and important in its own characteristic context. . . . It is natural to men to take that which is of chief value to them at the time as the real" (EN 31).

In this context Dewey speaks of a "fallacy of selective emphasis" rather than a "principle of selective emphasis." The isolation of certain elements from their context is the process Dewey believes re-
sponsible for the emphasis on permanence at the expense of change in traditional philosophy. This fallacy explains how philosophers, in the face of a complex, changing world, could nonetheless direct their attention to unchanging forms, unmoved movers, and permanent substances. The fallacy thus committed is common enough because it is the improper application of a necessary procedure in mental activity.

4. Dewey and Kant Re-examined

This fallacy of selective emphasis is applicable to a wider range of issues than simply that of change and permanence. The division between realistic and idealistic thinkers can also be viewed from the perspective of this fallacy. It is possible so to emphasize the dative character of the experienced world that the work of inquiry is reduced to a passive acceptance and cataloguing of presented facts. This is the realistic position as Dewey understands it. On the other hand, if the activity of the inquiring mind is overly emphasized, the idealistic analysis of knowing is the outcome. We have already examined Dewey's attempt to break free from both positions. His own understanding of inquiry is that it involves both passivity and activity on the part of the individual undertaking an intellectual search. This median position, which stresses both receptivity and activity on the part of consciousness, is one of the reasons why Dewey has been compared to Kant.

His relationship with Kant did not entirely escape Dewey's notice, and in The Quest for Certainty, published in 1929, he undertook to unravel the similarities and differences between them. Dewey readily admits that there is a "superficial resemblance" between his views and Kant's. "The element of similarity," he claims, "is suggested by Kant's well known saying that perception without conception is blind, conception without perception empty" (QC 137). Dewey is restating here what we already know from our study of his development. Neither he nor Kant believes that consciousness, whether of the subjective sort or of the objective kind, constitutes beings. There is a passive, receptive dimension to consciousness which must be recognized in a proper interpretation of its function. But this passive dimension alone is not sufficient to provide knowledge. An active element, ideas, or concepts must interact with the data re-
ceived. Each doctrine shares a concern that both these dimensions be given their proper significance. Beyond this similarity, however, there is found a disparity that decisively separates the two thinkers.

There is accordingly opposition rather than agreement between the Kantian determination of objects by thought and the determination by thought that takes place in experimentation. There is nothing hypothetical or conditional about Kant's forms of perception and conception. They work uniformly and triumphantly; they need no differential testing by consequences. The reason Kant postulates them is to secure universality and necessity instead of the hypothetical and the probable. Nor is there anything overt, observable and temporal or historical in the Kantian machinery. Its work is done behind the scenes. Only the result is observed, and only an elaborate process of dialectic inference enables Kant to assert the existence of his apparatus of forms and categories [QC 231].

If we list the descriptive terms for the respective positions either included in or suggested by this passage, then the differences between Kant and Dewey begin to manifest themselves more clearly. Dewey's analysis stresses "experimentation" and "consequences." It is "probable" and "temporal." Kant's theory involves "necessity" and "universality" and is "atemporal" as well as "unobservable." Both, however, make use of the pivotal term "object." This troublesome word will serve as the focal point for unraveling the differences between these two thinkers.

For Dewey, an object is determined through a process of inquiry. It is not simply a matter of a consciousness applying categories to a manifold of sensation. The discrimination of an object involves manipulation, which means actual physical involvement with external materials. This involvement, as we have seen, results from the need to resolve a problematic situation. Because of this, the consequences of the physical experimentation are of the utmost importance, since they will decide whether the situation is resolved or not. In the medical kind of example favored by Dewey, the physician, after having engaged in inquiries, which include such processes as examining blood samples and taking blood pressure, offers a suggested remedy. Only the consequences of using that remedy will allow the doctor to realize whether a particular diagnosis was accurate. There is never any question of absolute necessity or certainty.
Suggested solutions are only probable, and they must always be tested in terms of consequences. Accordingly, the whole process of inquiry is historical. That is to say, it occurs as a temporal sequence of interactions between the investigator and the subject matter undergoing inquiry.

This public aspect of experimentation is what Dewey most wishes to stress as differentiating his position from Kant's. The object is determined, not within consciousness, but in the process of actually doing something to the entities or events in question. This is a significant difference from the point of view of my own study. Whereas the Kantian doctrine is oriented inward, toward the subject, and away from the physical things-in-the-world, Dewey's position is outward-looking. As such, it suggests the need for an ontology, for a general theory of those things-in-the-world.

4.1. Takens or Givens?

Dewey argues that much could be gained in terms of clarity if philosophical discourse would substitute "takens" for "data" or "givens" when dealing with the subject matter of inquiry.

The history of the theory of knowledge or epistemology would have been very different if instead of the word "data" or "givens," it had happened to start with calling the qualities in question "takens." Not that the data are not existential and qualities of the ultimately "given"—that is, the total subject-matter which is had in non-cognitive experiences. But as data they are selected from this total original subject-matter which gives the impetus to knowing; they are discriminated for a purpose:—that, namely, of affording signs or evidence to define and locate a problem, and thus give a clew to its resolution [QC 142–43].

The emendation from "given" to "taken" is in several respects an indication of the kind of ontological analysis Dewey will undertake. (a) Being and knowing are not co-extensive. Beings, taken as total possible subject matters, offer too vast an area for the limited scope of human cognitive power. (b) These beings are given originally in "non-cognitive experiences." This is but another way in which Dewey denies the ubiquity of the knowledge relation. Existents are appreciated, feared, preferred, and used. These are examples of the non-cognitive experiences Dewey is referring to. (c) They present
themselves as capable of being known. (d) This knowledge results only after they have been experimented on or manipulated in some way.

These indications do not allow us to argue that Dewey has developed a revised ontology which recognizes forms-in-nature. What they offer is a context in which such a doctrine can emerge. If inquiry involves irreducibly a material that is subjected to experimentation, then certain traits of that material must make it susceptible to this kind of investigation. To admit this much is to begin engaging in ontology. The implications derived from Dewey's preference for "takens" instead of "givens" lead directly to another terminological modification that is introduced in The Quest for Certainty. He suggests that in his philosophical framework "intelligence" plays the role that "reason" did in earlier theories.

4.2. Reason and Intelligence

Dewey argues that "reason" is a word overlaid with the significance of sheer passivity or receptivity. Since his theory stresses the role of humans as participants, not as mere spectators, he is anxious to replace "reason" with a more suitable term. The term he selects is one that was also prominent in his idealistic phase: "intelligence."19

There is thus involved more than a verbal shift if we say that the new scientific development effects an exchange of reason for intelligence. In saying this, "reason" has the technical meaning given to it in classic philosophic tradition, the nous of the Greeks, the intellectus of the scholastics. In this meaning, it designates both an inherent immutable order of nature, superempirical in character, and the organ of mind by which this universal order is grasped [QC 169–70].

"Reason," as far as Dewey is concerned, is a term that is just not suited for the experimental method of inquiry. Reason implies a fixed or "immutable" order of nature, whereas inquiry, as Dewey conceives it, requires that natural beings be amenable to the variations introduced by experimentation. Absolute rigidity is incompatible with this view. In fact, reason may be seen as a term which, along with eidos, summarizes the objectionable view of form analyzed in this chapter. By saying that reason carries with it the bag-
gage of an immutable "superempirical" order of nature, Dewey is arguing that it is allied to a philosophical tradition that is both outdated and erroneous.

If reason indicates fixity on the part of nature, and passivity on the part of the inquirer, then we can expect that Dewey will use "intelligence" to stress different characteristics. And indeed he does.

Intelligence on the other hand is associated with judgment; that is, with selection and arrangement of means to effect consequences and with choice of what we take as our ends. A man is intelligent not in virtue of having reason which grasps first and indemonstrable truths about fixed principles, in order to reason deductively from them to the particulars which they govern, but in virtue of his capacity to estimate the possibilities of a situation and to act in accordance with his estimate [QC 170].

The two terms in this passage which are the best indications of Dewey's novel doctrine are "judgment" and "act." Knowledge, for Dewey, cannot be separated from action. The only way to resolve a problematic situation is to employ judgment, which is an estimation of the optimal method for a resolution, and then to act in accordance with that judgment.

Dewey wishes to emphasize that this is in no way a purely mentalistic endeavor. It involves active participation by the individual conducting the inquiry. It is in this sense, too, that the earlier terminological readjustment, that of "takens" for "givens," is connected with the use of intelligence. For if judgment involves "the selection and arrangement of means to effect consequences," then this selection involves "taking" from a complex whole those elements that are viewed as leading to a satisfactory resolution of the problematic situation. Dewey's choice of "intelligence" as a term to signify this procedure is well considered from an etymological point of view. The term means "selecting from among." The Latin intellectus from which it is derived is a compound of inter (among) and legere (to choose).20 We can say, then, that the Deweyan process of inquiry involves different stages: judgment, selection (taking), and action, all of which are both summarized by the term "intelligence" and incompatible with the traditional theory of fixed forms.

But the use of a term such as "intelligence" leaves ample room for an alternative ontological theory. "Intelligence," by emphasizing "taking" or "selection," is outwardly directed, as is clear from Dewe-
ey's argument, in the passage above, that intelligence involves the "capacity to estimate the possibilities of a situation." This means that it is the situation itself which to a degree will guide the solution. It also means that situations are not all alike, and that a limited amount of possibilities inheres in each situation. Limitation, as was pointed out in the Introduction, is usually a sign of structure or form. If not all situations offer the same grouping of possibilities, then it appears that they may be variously structured. Just how Dewey develops this line of thought will be the topic of the next chapters.

5. Summary

Because Dewey is sensitive to the history of philosophy he seeks to situate his own philosophical orientation within that history. This chapter examined his critical evaluations of Greek thought, especially Aristotle's. The distinction between techne and physis prepared the ground for comparisons between Aristotle and Dewey. These two philosophers may be similar in many respects but they differ in a fundamental way: Aristotle's thought emphasizes physis; Dewey's stresses techne.

Dewey's criticisms of Greek metaphysics are in keeping with his appreciation of Darwin. He claims that the Greeks, as typified by Aristotle, underemphasized the role of change in their analyses of existence. He attempts to understand why this is so, and provides an explanation. The need for control in social life and knowledge, together with the use of art as an analogy for understanding nature, led them to stress permanence over change. Such one-sided analyses can be avoided, according to Dewey, if philosophers would simply remember that selections are constantly being made in a context and for a purpose. Selective emphasis is an avoidable part of human life. What must be avoided is the tendency to disregard the context and purpose, recalling only those elements focused on as a result of selective emphasis.

Chapter 4 also brought an end to a leitmotif begun in Chapter 1 and continued in Chapters 2 and 3: the relationship of Dewey and Kant. Dewey's own analysis of the similarities and differences between his thought and that of Kant was examined. There is agreement between the two men that noetic activity involves both a pas-
sive and an active dimension, but the similarities end there. For Dewey, the process of inquiry which results in knowledge is experimental, hypothetical, and public, whereas for Kant the process is atemporal, apodictic, and internal.

In line with his criticisms of Kant, Dewey rejects two terms associated with a Kantian-type of analysis: “givens” and “reason.” Dewey suggests that “takens” be used as a more appropriate term than “givens” and that “intelligence” replace “reason.” The word “takens” has the advantage of keeping the selective nature of noetic activity clearly in focus. The temptation to hypostatize the results of inquiry, or to ignore the situation in which selections are made, is thus minimized. Dewey prefers the term “intelligence,” a word that was prominent in his book on Leibniz, to “reason” because of the latter’s association with passivity and fixity. “Intelligence,” on the other hand, connotes the active participation of an inquirer selecting the means to resolve a problematic situation. It thus is better suited for expressing the novel philosophical orientation Dewey is beginning to formulate.

NOTES

1. See chap. 3, sect. 3.1.
2. The example concerning the production of metal from ore, cited later in this chapter, is typically Deweyan. See sect. 2. On the use of a physician as illustrative of his position, see chap. 3, sect. 3.1.
4. See chapt. 1, sect. 2.21.
5. *Metaphysics* 1032a19–20, in *Basic Works of Aristotle*, ed. McKeon, p. 791. A similar statement can be found in the *Categories* 1A27–28: “To sketch my meaning roughly, examples of substance are ‘man’ or ‘the horse’ . . . ” (in ibid., p. 3).
7. “If happiness is activity in accordance with virtue, it is reasonable that it should be in accordance with the highest virtue; and this will be that of the best thing in us. Whether it be reason or something else that is this element which is thought to be our natural ruler and guide and to take thought to things noble and divine, whether it be itself also divine or only the most divine element in us, the activity of this in accordance with its proper virtue will be perfect happiness. That this
activity is contemplative we have already said” (Ethics 1177a11–19, in ibid., p. 1104).

8. Dewey may not give to *theoria* the prominent place it held with earlier thinkers, but he is not so insensitive as to deny its value altogether. At EN 121, he argues that he has been misunderstood on this matter. “It is characteristic of the inevitable moral pre-possession of philosophy, together with the subjective turn of modern thought, that many critics take an ‘instrumental’ theory of knowledge to signify that the value of knowing is instrumental to the knower. This is a matter which is as it may be in particular cases; but certainly in many cases the pursuit of science is sport, carried on, like other sports, for its own satisfaction.” A similar sentiment is voiced on page 304 where Dewey asserts that reflection “is a unique intrinsic good.”


10. “But in the practice of science, knowledge is an affair of making sure, not of grasping antecedently given sureties. What is already known, what is accepted as truth, is of immense importance; inquiry could not proceed a step without it. But it is held subject to use, and is at the mercy of the discoveries which it makes possible. It has to be adjusted to the latter and not the latter to it. When things are defined as instruments, their value and validity reside in what proceeds from them; consequences not antecedents supply meaning and verity” (EN 123). On this point, Dewey reveals himself to be a faithful disciple of Francis Bacon. “Of all signs there is none more certain or more noble than that taken from fruits. For fruits and works are as it were sponsors and sureties for the truth of philosophies” (Novum Organum 1.73, in English Philosophers from Bacon to Mill, ed. Burtt, p. 51).


12. Alexander Marshak, who made the important discovery of prehistoric calendars, has suggested that agriculture is a “time-factored” activity. This implies that it depends on the ability of individuals to recognize the periodic or seasonal character of temporal flow. See his *The Roots of Civilization: The Cognitive Beginnings of Man's First Art, Symbol, and Notation* (New York: McGraw-Hill, 1972), pp. 14–15.

13. Concerning art, Dewey writes: “Resort to esthetic objects is the spontaneous human escape and consolation in a trying and difficult world” (EN 77).

14. “Yet it [Aristotle's theory] was a natural interpretation of things found in ordinary experience. The immediate qualitative differences of things cannot be recognized without noting that things possessed of
these qualitative traits fall into kinds, or families” (EN 168). Aristotle's classificatory scheme, however, is not as clear-cut as it is sometimes made out to be. W. D. Ross, for instance, claims that Aristotle was the first thinker systematically to classify living beings. But he qualifies this assertion by stating that “no cut-and-dried classification is to be found in his [Aristotle's] writing” (Aristotle, p. 115). D'Arcy Thompson, who was both a biologist and an Aristotelian translator, emphasizes this point even more strenuously: “Many commentators have sought for Aristotle’s ‘classification of animals’; for my part I have never found it, and, in our sense of the word, I am certain it is not there” (“Natural Science,” in The Legacy of Greece, ed. R. W. Livingstone [Oxford: Clarendon, 1929], p. 158).


16. See chap. 3, sects. 3.2 and 3.3.

17. We saw in chap. 2, sect. 3 that two recent commentators, Richard Rorty and Robert Dewey, made just this sort of analysis.

18. A more accurately Deweyan version of Kant's perception/conception statement comes from Claude Bernard, the famous physiologist and theoretician of the experimental method. “A skilled hand without the head to direct it is a blind instrument; the head without the hand to carry out an idea remains impotent.” Bernard's quotation is more Deweyan because of its emphasis on the “hand” which must manipulate and bring changes into the material being investigated. It stresses the public, external aspect of the experimental method. The quotation from Bernard is found in Mirko D. Grmek, “Bernard, Claude,” The Dictionary of Scientific Biography II, ed. Charles C. Gillispie (New York: Scribner's, 1970), p. 32.

19. This term was discussed in chap. 1, sect. 2.242.