Nature of Philosophical Inquiry

Ideas of Interest From "Nature of Philosophical Inquiry"



Messier 81, NASA, JPL

- 1. How is philosophy provisionally defined in this chapter?
- 2. In what ways does Alexander Calandra's "Barometer Story" illustrate the philosophical approach to a practical problem? What do you think is the difference between thinking about the methods for solving a problem and applying a method for solving a problem?
- 3. What are some of the differences between philosophy and science?
- 4. Briefly characterize the main branches of philosophy.
- 5. Do you think the kinds of distinct things that exist in the universe are independent of the concepts we use for description? Consider the following koans: "Where does my fist go when I open my hand?"

"Where does my lap go when I stand up?"

From the reading...

"... some people characterize a philosophical problem as *any* question that does not have a well-established method of solution, but that definition is undoubtedly too broad."

Characterization of Philosophy

One reasonably good beginning characterization of philosophy is that philosophy is the sustained inquiry into the principles and presuppositions of any field of inquiry. As such, philosophy is not a subject of study like other subjects of study. *Any* given field of inquiry has philosophical roots and extensions. From the philosophy of restaurant management to philosophy of physics, philosophy can be characterized as an attitude, an approach, or perhaps, even a calling, to ask, answer, or even just comment upon certain kinds of questions. These questions involve the nature, scope, and boundaries of that field of interest. In general, then, philosophy is both an activity involving thinking about these kinds of ultimate questions and an activity involving the construction of sound reasons or insights into our most basic assumptions about the universe and our lives.

Quite often, simply asking a series of "why-questions" can reveal these basic presuppositions. Children often ask such questions, sometimes to the annoyance of their parents, in order to get a feel for the way the world works. Asking an exhaustive sequence of "why-questions" can reveal principles upon which life is based. As a first example, let us imagine the following dialogue between two persons as to why one of them is reading this philosophy book. Samantha is playing "devil's advocate."

Samantha: "Why are you reading Reading for Philosophical Inquiry?"

Stephen: "It's an assigned book in philosophy, one of my college courses." Samantha: "Why take philosophy?"

Stephen: "Well, philosophy fulfills the humanities elective."

Samantha: "Why do you need that elective?"

At this point in the dialog, a growing resemblance to the insatiable curiosity of some children is beginning to be unmistakable. We continue with the cross-examination.

Stephen: "I have to fulfill the humanities elective in order to graduate."

Samantha: "Why do you want to graduate?"

Stephen: "What? Well, I'd like to get a decent job which pays a decent salary."

Samantha:"Well, why, then, do you want that?"

Undoubtedly, at this point, the conversation seems artificial because for some persons, the goal of graduating college is about as far as they have thought their life through, if, indeed, they have thought that far—and so for such persons this is where the questioning would have normally stopped. Other persons, however, can see beyond college to more basic ends such as Stephen's want of an interesting vocation with sufficient recompense, among other things. Even so, we have not yet arrived at the kind of basic presuppositions we have been talking about for Stephen's life, so we continue with Samantha's questioning.

Stephen: "What do you mean? A good job which pays well will enable me the resources to have an enjoyable life where I can do some of the important things I want to do."

Samantha: "Why do you want a life like that?"

Stephen: "Huh? Are you serious?"

When questions finally seem to make no sense, very often, we have reached one of those ultimate fundamental unquestioned assumptions. In this case, a basic principle by which Stephen lives his life seems to be based on seeking happiness. So, in a sense, although he might not be aware of it at the moment, he believes he is working toward this goal by reading this textbook. Of course, his choice of a means to obtain happiness could be mistaken or perhaps even chosen in ignorance—in which case he might not be able to obtain what he wants out of life. If the thought occurs to you that it is sometimes the case that we might not be mistaken about our choices and might actually be choosing knowledgeably and even so might not achieve what we desire, then you are already doing philosophy.

If we assume that Samantha is genuinely asking questions here and has no ulterior motive, then it is evident that her questions relate to a basic presupposition upon which Stephen is basing his life. Perhaps, she thinks the quest for a well-paying job is mistaken or is insufficient for an excellent life. Indirectly, *she* might be assuming that other fundamental values are more important. If the questioning were to continue between Samantha and Stephen, it quite possibly could go along the lines of attempting to uncover some of these additional presuppositions upon which a life of excellence can be based.

In philosophy these kinds of questions are often about the assumptions, presuppositions, postulates, or definitions upon which a field of inquiry is based, and these questions can be concerned with the meaning, significance, or integration of the results discovered or proposed by a field of inquiry.¹

For example, the answer "Gravity" is often thought to be a meaningful answer to the question, "Why do objects fall in the direction toward the center of the earth?" But for this answer to be meaningful we would have to know what gravity is. If one were to answer "a kind of force," or " an attraction" between two objects, then the paraphrase gives no insight into the nature of what gravity is, for the paraphrase is viciously circular.

Many scientists hold the view that, "If we know the rules, we consider that we 'understand' the world."² The rules for gravity are:

... every object in the universe attracts every other object with a force which for any two bodies is proportional to the mass of each and varies inversely as the square of the distance between them.

 \dots an object responds to a force by accelerating in the direction of the force by an amount that is inversely proportional to the mass of the object...³

Yet, there must be more to understanding gravity than this. Consider a mentalist who stands before a door and concentrates deeply. Suppose the door opens, and no one, neither scientist nor magician, is able to see how the mentalist accomplishes the opening of the door. So we ask, "How did you do that?"

The mentalist responds, "Smavity."

We reply, "What is 'smavity'?"

The mentalist says, "Smavity is a force—an attraction between me and the door."

^{1.} Our characterization here omits what are sometimes termed the "antiphilosophies" such as postmodernism, a philosophy opposing the possibility of objectivity and truth, and existentialism, a group of philosophies dismissing the notion that the universe is in any sense rational, coherent, or intelligible. The characterization of philosophy proposed in the text is provisional and is used as a stalking horse for the discipline.

^{2.} Richard P. Feynman, et. al.. The Feynman Lectures on Physics. Volume 1. Reading, Mass.:Addison-Wesley, 1963, §2-1.

^{3.} *Ibid*, §7-1.

The scientist on the scene observes and measures:

The mentalist attracts the door with a force which between them is proportional to the mass of each and varies inversely as the square of the distance between them.

...and...

The door responds to the mentalist by accelerating in the direction of the force by an amount that is inversely proportional to the mass of the door.

From a philosophical point of view, even though we know the rules, we do not "understand" the phenomenon.



Gravity Wave Measurements in the Upper Atmosphere over North America, NASA. JPL

Philosophy also involves new assumptions or presuppositions as reasons for the explanation of natural phenomena. For example, the questioning of the fifth postulate of Euclid which led to the development of non-Euclidean geometries or the questioning of Aristotle's assumption that heavier bodies fall faster than lighter bodies of similar shape which led to more modern theories of gravitation, are assumptions which helped to establish new fields of knowledge. What's more, the application and reinterpretations of the results and discoveries of the resulting different fields of inquiry properly belong to the domain of philosophy as well—even though, in many instances, the investigators, themselves, might have had no formal philosophic training. Since philosophical questioning covers so

much territory, some people characterize a philosophical problem as *any* question that does not have a well-established method of solution, but that definition is undoubtedly too broad.

Perhaps the point can be clarified by the following excerpt from the legendary story of the barometer problem in physics. This oft-quoted account illustrates great ingenuity in creative problem solving; ultimately, however, the description catalogs admittedly standard, though clever, methods of thinking. Philosophical thinking begins when we are frustratingly confused as to how to proceed to answer a question, and, after conceptual reframing, philosophy can end with the kinds of solutions summarized here by a physics professor at the University of Washington—St. Louis.

"The Barometer Story" by Alexander Calandra

Some time ago I received a call from a colleague who asked if I would be the referee on the grading of an examination question. He was about to give a student a zero for his answer to a physics question, while the student claimed he should receive a perfect score and would if the system were not set up against the student. The instructor and the student agreed to submit this to an impartial arbiter, and I was selected.

I went to my colleague's office and read the examination question, "Show how it is possible to determine the height of a tall building with the aid of a barometer."

The student had answered, "Take a barometer to the top of the building, attach a long rope to it, lower the barometer to the street and then bring it up, measuring the length of the rope. The length of the rope is the height of the building."



Reading For Philosophical Inquiry: A Brief Introduction

Wheel Barometer from Edward J. Dent, *A Treatise on the Aneroid*, NOAA Library Collection

I pointed out that the student really had a strong case for full credit since he had answered the question completely and correctly. On the other hand, if full credit was given, it could well contribute to a high grade for the student in his physics course. A high grade is supposed to certify competence in physics, but the answer did not confirm this. I suggested that the student have another try at answering the question. I was not surprised that my colleague agreed, but I was surprised that the student did.

I gave the student six minutes to answer the question with the warning that the answer should show some knowledge of physics. At the end of five minutes, he had not written anything. I asked if he wished to give up, but he said no. He had many answers to this problem; he was just thinking of the best one. I excused myself for interrupting him and asked him to please go on. In the next minute he dashed off his answer which read, "Take the barometer to the top of the building and lean over the edge of the roof. Drop that barometer, timing its fall with a stopwatch. Then using the formula $S = \frac{1}{2at^2}$, calculate the height of the building."

At this point I asked my colleague if he would give up. He conceded, and I gave the student almost full credit.

In leaving my colleague's office, I recalled that the student had said he had many other answers to the problem, so I asked him what they were. "Oh yes," said the student. "There are a great many ways of getting the height of a tall building with a barometer. For example, you could take the barometer out on a sunny day and measure the height of the barometer and the length of its shadow, and the length of the shadow of the building and by the use of a simple proportion, determine the height of the building."

"Fine," I asked. "And the others?"

"Yes," said the student." There is a very basic measurement method that you will like. In this method you take the barometer and begin to walk up the stairs. As you climb the stairs, you mark off the length of the barometer along the wall. You then count the number of marks, and this will give you the height of the building in barometer units. A very direct method."

"Of course, if you want a more sophisticated method, you can tie the barometer to the end of a string, swing it as a pendulum, and determine the value of 'g' at the street level and at the top of the building. From the difference of the two values of 'g' the height of the building can be calculated." Finally, he concluded, there are many other ways of solving the problem. "Probably the best," he said, "is to take the barometer to the basement and knock on the superintendent's door. When the superintendent answers, you speak to him as follows, 'Mr. Superintendent, here I have a fine barometer. If you tell me the height of this building, I will give you this barometer."

At this point I asked the student if he really did know the conventional answer to this question. He admitted that he did, said that he was fed up with high school and college instructors trying to teach him how to think, using the "scientific method"...⁴

Main Divisions of Philosophy

It may well be wondered, at this point, as to the exact difference between philosophy and the sciences.⁵ The following excerpt from the entry "Philosophy" in the authoritative 1911 *Encyclopædia Britannica* explains one aspect of this relation well and is well worth reading carefully:

In distinguishing philosophy from the sciences, it may not be amiss at the outset to guard against the possible misunderstanding that philosophy is concerned with a subject-matter different from, and in some obscure way transcending, the subject-matter of the sciences. Now that psychology, or the observational and experimental study of mind, may be said to have been definitively included among the positive sciences, there is not even the apparent ground which once existed for such an idea. Philosophy, even under its most discredited name of metaphysics, has no other subject-matter than the nature of the real world, as that world lies around us in everyday life, and lies open to observers on every side. But if this is so, it may be asked what function can remain for philosophy when every portion of the field is already lotted out and enclosed by specialists?

Philosophy claims to be the science of the whole; but, if we get the knowledge of the parts from the different sciences, what is there left for philosophy to tell us? To this it is sufficient to answer generally that the synthesis of the parts is something more than that detailed knowledge of the parts in separation which is gained by the man of science. It is with the ultimate synthesis that philosophy concerns itself; it has to show that the subject-matter which we are all dealing with in detail really is a whole, consisting of articulated members. Evidently, therefore, the relation existing between and the sciences will be, to some extent, one of reciprocal influence.

^{4.} Alexander Calandra. Current Science. XLIV, 14, 49.

^{5.} This question is taken up in more detail in our reading from Bertrand Russell's *Problems of Philosophy*, in Part I.



Newton's *Philosophiæ Naturalis Principia Mathematics, title page, pages* 354-355, State Library of Victoria

The author of this entry is pointing to the unifying and systematizing methods of philosophy for other disciplines. The coherence of the whole is made possible by consistent fundamental principles. The article continues:

The sciences may be said to furnish philosophy with its matter, but philosophical criticism reacts upon the matter thus furnished, and transforms it. Such transformation is inevitable, for the parts only exist and can only be fully, *i.e.* truly, known in their relation to the whole. A pure specialist, if such a being were possible, would be merely an instrument whose results had to be co-ordinated and used by others. Now, though a pure specialist may be an abstraction of the mind, the tendency of specialists in any department naturally is to lose sight of the whole in attention to the particular categories or modes of nature's working which happen to be exemplified, and fruitfully applied, in their own sphere of investigation; and in proportion as this is the case it becomes necessary for their theories to be co-ordinated with the results of other inquirers, and set, as it were, in the light of the whole.

This task of co-ordination, in the broadest sense, is undertaken by philosophy; for the philosopher is essentially what Plato, in a happy moment, styled him, $\sigma \nu \nu \sigma \tau \iota \kappa \delta \sigma$, the man who takes a "synoptic" or comprehensive view of the universe as a whole. The aim of philosophy (whether fully attainable or not) is to exhibit the universe as a rational system in the harmony of all its parts; and accordingly the philosopher refuses to consider the parts out of their relation to the whole whose parts they are. Philosophy corrects in this way the abstractions which are inevitably made by the scientific specialist, and may claim, therefore, to be the only "concrete" science, that is to say, the only science which takes account of all the elements in the problem, and the only science whose results can claim to be true in more than a provisional sense.6

The foundational and unifying aspects of philosophy form the characteristics of our beginning study of philosophical inquiry in this introductory set of readings. It is important to point out however that these characteristics are not " the be-all and end-all" of philosophy.

Epistemology: the Study of Knowledge

Traditionally philosophical questions have been grouped into three areas which we will very briefly describe and suggest a few examples. Given the nature of philosophical inquiry, these areas are interdependent. Undoubtedly, it will occur to you that each example provided provided below has characteristics related to other areas of philosophy, and, indeed, philosophical problems are rarely limited to just one area of the discipline.

(1) *Epistemology* (theory of knowledge): the inquiry into what knowledge is, what can be known, and what lies beyond our understanding; the investigation into the origin, structure, methods, and validity of justification and knowledge; the study of the interrelation of reason, truth, and experience.

As an example of an epistemological problem, consider the lottery paradox, an argument occasionally used to support skepticism: the doctrine that genuine knowledge is impossible. Some persons believe nothing in this life can be certain, anything is possible, and nothing is "for sure."⁷ Even if we do not accept radical skepticism, supposedly, the best that we can do as human beings is to justify our beliefs in terms of their probability. On this view, we could be justified in believing something is true if it is highly probable, but we would not be justified in believing something if it has a very low probability of being true. Admittedly, this kind of justification is not certainty or knowledge. Let's examine these assumptions more carefully.

Suppose we. with thousands of other persons, enter a fair-ticket lottery. Since the probability of our winning the lottery is quite low, on the above assumption, we would be fully justified in believing that we will not win.

What's more, since all ticket-holders have the same chance as we do to win, on the same assumption, we would be fully justified in believing that

^{6.} *The 1911 Edition Encyclopædia* (http://1911encyclopedia.org/P/PH/index.htm) "*Philosophy.*" The Website is a copyright-free reproduction of the 1911 edition of the *Encyclopædia Britannica* but is not so-labeled because of trademark concerns.

^{7.} As we will discover when we study the reading on epistemology, this view is not only an oversimplification but is also dangerously misleading.

each one of those individuals will not win either. Thus, we are justified in concluding that no ticket will win since the probability of any one ticket winning is quite low.⁸

Of course, at the same time we know that this "reasonable" belief is mistaken because we *know* that in a fair lottery one ticket *will* win. The "lottery paradox" indicates beyond doubt that knowledge cannot result directly from empirical inquiry, since any belief could only involve probable conclusions—conclusions which are fallible.

From the reading...

"... how *can* we know that the universe wasn't created a few minutes ago? "

Another perplexing example from epistemology is Bertrand Russell's Five-Minute World Hypothesis: suppose the universe were suddenly created five minutes ago, complete with memories, historical and geological records, and so forth. That is, at the moment of creation, the universe would have all the evidence that it was billions of years old already "packed in." How could it ever be known that the creation of the universe did *not* occur five minutes ago?

The hypothesis initially seems implausible, yet how *can* we know that the universe wasn't created a few minutes ago? Certainly the Five-Minute World hypothesis is inconsistent with many of our other beliefs. If it were true, we would have to give up these other beliefs if we were to hold it, but how could we prove beyond any shadow of doubt what is the case? From a purely empirical point of view, no evidence is available which could prove that God isn't constantly creating the universe moment by moment. In fact, as we will see in Part III of this text, some persons who believe in predestination eschew the notion of causality and believe God actually does create the universe moment by moment.

Many times in philosophy, proposed solutions to specifically formulated problems such as these lead to amazing shifts in perspective by which the nature of the universe can be comprehended.

^{8.} Note the structure of this argument can be seen as a *reductio ad absurdum*.

Metaphysics (Ontology): the Study of Reality

(2) *Metaphysics* or *Ontology* (theory of reality): the inquiry into what is real as opposed to what is appearance, either conceived as that which the methods of science presuppose, or that with which the methods of science are concerned; the inquiry into the first principles of nature; the study of the most fundamental generalizations as to what exists.

A typical example of an ontological problem is the well-known difficulty of finding "a criterion of individuation" for distinguishing things. Suppose we are asked to sort potatoes into two baskets—one for the large ones and one for small ones. For the most part, we wouldn't expect many problems with such a straightforward task.

Very large potatoes would be placed in the basket selected for the large potatoes, and tiny potatoes would be placed in the basket selected for the small potatoes. But, of course, there is a problem. What shall we do about the potatoes of a size difficult to judge—for example, a potato sized somewhere between the large and small ones: *e.g.*, one that is short and wide, one that is long and thin, or one that is just plain "medium-sized"?

We could set up a criterion of "potato-ness" by means of a precising or an operational definition which clearly distinguishes between "large" and "small"—perhaps by measuring volume, weight, or length in order to mark accurately the difference. But then would such a criterion thereby entail that a medium potato does not exist?

If we admit existence of medium potatoes, then our "criterion of potatoness" must be revised to take account of the "newly discovered entity" of the medium potato. However, as you may have already guessed, our problems have now doubled. We now need criteria to distinguish the large from the medium and the medium from the small. *Ontologically*, a new problem arises. Should we admit the existence of medium-large and medium-small potatoes? If so, lamentably, our problem again propagates itself again in the same manner.

Do you think that the kinds of things that exist in the universe are independent of the concepts we use to describe them? Or do our concepts determine the kinds of things we can know to exist? Do the mere actions of perceiving and thinking limit the content of our ideas? What could be the reality beyond our ideas?

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Axiology: the Study of Value

(3) *Axiology* (theory of value): the inquiry into the nature, criteria, and metaphysical status of value. Axiology, in turn, is divided into two main parts: ethics and æsthetics.

Although the term "axiology" is not widely used outside of philosophy, the problems of axiology include (1) how values are experienced, (2) the kinds of value, (3) the standards of value, and (4) in what sense values can be said to exist. Axiology, then is the subject area which tries to answer problems like these:

- 1. How are values related to interest, desire, will, experience, and means-to-end?
- 2. How do different kinds of value interrelate?
- 3. Can the distinction between intrinsic and instrumental values be maintained?
- 4. Are values ultimately rationally or objectively based?
- 5. What is the difference between a matter of fact and a matter of value?

There are two main subdivisions of axiology: ethics and æsthetics. Ethics involves the theoretical study of the moral valuation of human action—it's not just concerned with the study of principles of conduct. Æsthetics involves the conceptual problems associated with the describing the relationships among our feelings and senses with respect to the experience of art and nature. Each of these subdivisions are briefly characterized below.

From the reading...

"The golden section is directly connected with the Fibonacci numbers and the basis of the spiral."

(a) *Æsthetics*: the inquiry into feelings, judgments, or standards concerning the nature of beauty and related concepts such as the tragic, the sublime, or the moving—especially in the arts; the analysis of the values of sensory experience and the associated feelings or attitudes in art and nature; the theories developed in *les beaux arts*.



Fechner's Rectangles: Which rectangle is the the most æsthetically pleasing?

Gustav Fechner, an early psychologist, asked 228 men and 119 women which of the following rectangles is æsthetically the most pleasing. Take a look at the following figures. Which figure would you choose?

Fechner's experiment has been repeated with variations in methodology many times, and occasionally his results have been supported. In general, the rectangle with the ratio of 21:34 was preferred, with the rectangles adjacent to this one in the picture being rated highly also. The ratio of 21:34 is the so called "golden rectangle" because it's based on the golden ratio or "divine proportion." It's rectangle D above. Euclid defines the golden proportion as

A straight line is said to have been cut in extreme and mean ratio when, as the whole line is to the greater segment, so is the greater to the lesser.



Long segment = 1.618 of short segment

Reading For Philosophical Inquiry: A Brief Introduction

Golden Section, Whirlpool Galaxy; Air Currents from Flue Organ, and Sunflower

Notice in the accompanying figure of the golden section and accompanying examples, how the reciprocal of this ratio involves the same sequence of digits following the decimal point. This ratio is the golden ratio and is ubiquitous in art and nature. Investigators have discovered the golden proportion as the foundational spatial relation in Leonardo da Vinci's *Mona Lisa*, Salvador Dali's *Sacrament of the Last Supper*, and numerous other paintings. This number appears in plant and animal growth and has intriguing relationships with architecture and sculpture. The golden section is directly connected with the Fibonacci numbers and the basis of the spiral. Would it be reasonable to conclude, then, that beauty is merely a mathematical relationship?

Or is it more likely that the ubiquitous occurrence of the golden section is just a result of some prosaic numerology and is an example of our ability to manufacture what we want to find by manipulating innumerable numerical relationships which we also create? Moreover, how would these mathematical observations be related to the widespread belief that truly remarkable artists break the rules or laws of past artistic works?

(b) *Ethics*: the inquiry into the nature and concepts of morality, including the important problems of good, right, duty, virtue, and choice; the study of the principles of living well and doing well as a human being; the moral principles implicit in mores, religion, or philosophy.

As a philosophical problem in ethics, consider this example analyzed by J. O. Urmson in his well-known essay, "Saints and Heroes":

We may imagine a squad of soldiers to be practicing the throwing of live hand grenades; a grenade slips from the hand of one of them and rolls on the ground near the squad; one of them sacrifices his life by throwing himself on the grenade and protecting his comrades with his own body. It is quite unreasonable to suppose that such a man must be impelled by the sort of emotion that he might be impelled by if his best friend were in the squad.⁹

Did the soldier who threw himself on the grenade do the right thing? If he did not cover the grenade, probably several soldiers would be killed. His action undoubtedly saved lives; certainly, an action which saves lives is a morally correct action. One might even be inclined to conclude that saving

^{9.} J. O. Urmson. "Saints and Heroes" in *Moral Concepts*. Ed. by Joel Feinberg. London: Oxford University Press, 1969, 63.

lives is a duty. But if this were so, wouldn't *each* of the soldiers have the moral obligation or duty to save his comrades?

From the reading...

"each should then have to fight off the others in order to perform his moral obligation to get to the grenade first."

Surely this cannot be a correct assessment of the situation because if it were morally obligatory for *each* one of them to fall on the grenade, each should then have to fight off the others in order to perform his moral obligation to get to the grenade first.

What would you conclude about this example? Would it be our duty to save lives in this situation *ceteris paribus*, or would we be "going beyond the call of duty" in such a case? Does our right to self-preservation supersede our obligation to save the lives of other persons? Would the number of lives involved in the instance make an ethical difference? What if such an action were to save the world from nuclear destruction?

Admittedly, these brief descriptions and examples do not adequate reflect the nature of philosophy, and they are not especially typical problems. Even so, they are problems intellectually grasped without attendant dangers of confusion by emotional prejudice, and they involve the same sorts of issues as more socially controversial philosophical problems which often involve a plethora of side-issues and persuasive definitions such as euthanasia, genocide, capital punishment, and abortion.

From the preface...

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"... he was fed up with high school and college instructors trying to teach him how to think, using the 'scientific method.""

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Title Page to Edward Saul's A Historical and Philosophical Account of the Barometer 1735, NOAA Library Collection

Related Ideas

1911 Edition Encyclopedia (http://1911encyclopedia.org/P/PH/index.htm) "*Philosophy.*" This copyright-free article from the 1911 *Encyclopædia Britannica* offers an insightful introduction to the main divisions of philosophy.

Topics Worth Investigating

- 1. How adequate is the definition of philosophy proosed in this chapter? What kinds of philosophical inquiry are omitted by this definition?
- 2. Sometimes the distinction between science and philosophy is made by noting that philosophy attempts to answer the question "Why?," and science attempts to answer the question "How?" What do you think is the essential difference between a "why-question" and a "howquestion"? Is there a difference in the kinds of answers which would satisfy each kind of question? Is the difference between why-questions

and how-questions the same as the difference between arguments and explanations?

- 3. If everything in the universe were to grow proportionally one-thousand times larger, would we be able to detect it?
- 4. Does one have the obligation to be a hero? Does one have the obligation to be a saint? Discuss whether of not the needs of others should always be put before one's own.
- 5. Which is more fundamental: beauty in nature or beauty in art? *E.g.*, is a sunset beautiful because it is "just like" a painting or is a painting beautiful because it is "just like" a sunset?

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