

ADVENTURES

of the MIND

Why Philosophy ?

To clarify concepts, not
to state facts—such is the
philosopher's purpose.

A hundred years ago our highly respectable ancestors were shaking their heads over the unrespectable modern ways of the younger generation. A thousand years ago their ancestors undoubtedly did the same thing and wondered what the world was coming to. Of course, it is possible for a society to come to a disastrous end. The Neanderthal race probably came to as bad an end as their eldest moralists could have predicted—if they had speech, which is uncertain—for they seem to have been exterminated and frequently eaten by their taller and technologically more advanced competitors, the Cro-Magnon people. The Tasmanians met their end when civilized Christian men from Europe discovered them. They were not eaten, but it might have seemed more orderly and respectable to them if they had been.

Social life is always modern and would always come to bad ends if it came to ends at all. But it rarely does, because we usually don't let it. Before evils reach their final, fatal stage, we do something about them. But it is remarkable how close to

the brink of destruction we often let evils take us, and how much suffering society will tolerate before it moves to free itself from an incubus—pest, famine, anarchy, superstition, degeneracy, mass warfare.

In every age some social advances are materializing; and as its old people look with misgiving on the bold innovations, its young people look with pity and a little scorn on the stuffy past. The young are making the new world and, in the excitement of making it, they overlook what their elders are seeing—that with every change, even the most desired, some new problems are created.

To weary or unimaginative minds the best way to deal with any new potential evil is to nip it in the bud by forgoing the social change which might create it—stick to hand industry, for example, because the factory system threatens to weld men into ignorant masses and to dehumanize them; keep women subjugated, lest they lose their charm and domestic virtues by foolishly aping men.

History does not stand still and cannot be held back by bogging down in old activities. In the world that shaped them, those successful activities already bore the seeds of the future. That future is now upon us, and all its potential evils have become imminent and must be dealt with. A potential evil is not a finished fact; it is a problem. A great mind is one that sees the problematical content of radical changes and dares to tackle it, to face the problems and solve them as part and parcel of the advance into a new order, whether in science, government, economics, ethics or whatever field.

In our present age of rapid changes, anybody can see that problems crop up at the same accelerating rate at which political and technological developments are going. What is not plain for everyone to see is that as the changes in the human scene increase, the problems they engender run into one another and ultimately run deeper, to the common roots of all our special activities, the basic attitudes and ideas embodied in European culture. That culture has recently changed so profoundly that even its conceptual framework shows the strain; and doubts arise in thoughtful minds whether our most time-honored words, such as "matter," "infinity," "individual," "community," "mind," "truth," still mean what they used to mean a hundred years ago. If not, then what do they mean? If we don't know exactly, then how do we know what we are saying when we use them?

The answer is, of course, that we do not know exactly what we are saying, nor even precisely what we want to say. So long as we doubt what our general terms really mean, we cannot even think clear thoughts, for all thinking on a theoretical level is implemented wholly by words, and if the implements are faulty, thinking peters out in confusion. These problems of meaning are essentially philosophical problems which have to be resolved somehow before we can deal with facts.

For some inscrutable reason, the word "philosophical" makes most people decide on the spot that the problem is not for them. Usually they say with great conviction and a touch of self-approval, "I haven't got that kind of mind." But if you ask what kind of mind one needs for philosophical reflection, they do not claim to know. They have healthy, normal minds; philosophy is for some extraordinary sort of brain.

Perhaps there is a bit of truth in that opinion. As one of the great philosophers of our century, Alfred North Whitehead, said, "It requires a very unusual mind to undertake the analysis of the obvious." To undertake it, yes; words we use all the time without stopping to ask or to specify what they mean must have obvious meanings, and to question these takes an unusual sort of mind. But to follow the analysis, once somebody has undertaken it, requires no more than a clear head. It is not lack of some special talent, but of philosophical training that makes the average person afraid of dealing with concepts. The chances are that he does not even know what philosophy is, and therefore looks with undue awe at philosophers, much as persons who know nothing about medicine look at doctors as though they were magicians. It is a serious charge against our educational system that most high-school graduates should not know what philosophy is and shy away from it as something esoteric and beyond them.

The most immediate remedy for this state of affairs is, of course, to make up the deficit ourselves, inquire what philosophy is, whether it really bears on matters that are vital to us,

By *SUSANNE K. LANGER*



About the Author

Susanne K. Langer ranks among the world's foremost philosophers. A native American of German parentage, educated in a French school in New York and at Radcliffe College, she says: "A strong contemplative bent has kept me from entering directly into practical affairs, political, economic or social. New theories capable of far-reaching developments seem to me the most immediate challenge." Mrs. Langer has taught philosophy in nine universities and colleges, among them her alma mater, Columbia and Connecticut College. Famed for her studies in the philosophy of art, she is now working under a Kaufmann Foundation grant on a major opus—a philosophy of mind. "My aim," she says, "is to put psychology and the social sciences on a firm and free philosophical foundation."

and if so, how we should revise our approach to such matters. So let us consider, in the first place, what is a philosophical issue, as distinct not only from a practical one but also from scientific work; secondly, how genuinely philosophical problems arise in scientific work so that such work must stop until they are resolved, and how they arise in ordinary practical and moral life, to bedevil our emotional stability; and finally, how we can tackle these deepest questions, and what we are likely to have to deal with before we are through.

What, then, is a philosophical problem and how does it differ from scientific and practical ones? The latter kinds are more familiar to us and they have something in common, which is that a correct answer to them is a statement of fact. Such questions and statements are called "empirical," which means "known by sense-experience." Many scientific statements do not seem to be empirical, being the results of mathematical calculations; but, what finally validates them is always experiment,

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Why Philosophy? (Continued from Page 35)

actual observation, and if this does not corroborate them, the whole assertion is false and has to be reconsidered.

A philosophical problem, on the other hand, is a problem of meaning. Its answer is not a statement of fact, but an interpretation of words or statements, especially a pursuit of their implications—of which people are usually quite unaware. Philosophical statements are not empirical, but conceptual. If, for instance, you ask, "What causes a geyser to erupt periodically?" that is an empirical question, a scientific one. But: "What do you mean by 'causing'?" is a philosophical problem—one of the most far-reaching, in fact, in the philosophy of science.

Some people might be tempted to reply that it is also one of the most far-fetched. Everybody thinks he knows what "causing" means, so why bother with a precise definition?

The answer is, because we know the meaning of this and many other words only so long as our discourse is on a familiar, everyday level. Any child can understand what you mean when you say that accumulating steam *causes* geysers to spout. This, however, is not the level on which the mind of a pioneering scientist moves. He needs high-precision concepts as much as he needs high-precision instruments. The way to attain such concepts is to subject the rough-and-ready notions of ordinary discourse to more and more rigorous definition until we know exactly what our words mean and all the necessary concepts have become clear.

Philosophy, then, is the clarification and articulation of concepts. This definition may not fit some people's ideas of the deepest thoughts men have had; "philosophy" is commonly taken to mean general reflection on life, moral adages, logical justification of religious beliefs or speculations on the nature of the universe which go beyond what is scientifically known. All these notions do fit some aspects or some consequences of philosophical thought, but they constitute neither its substance nor its discipline. A philosophical statement always involves us in some trafficking with the meaning of a term or an assertion, pushed to its furthest consequences. It makes explicit what is implicit in our beliefs or denials—that is, what we are assuming, usually without realizing it, when we make what seems like a plausible assertion. In fact, one does not even have to assert anything; just to ask a question is to use a whole lot of ideas hidden in the structure of language, in figures of speech that have become our figures of thought, in prepositions and verb forms and other items of discourse hard to define, but even harder to dispense with. If you ask what was the place, date and hour of an accident, you assume our whole conventional system of dividing time into years, months, days and hours, and the equally conventional spatial frame of four compass points, wherein every place on the earth can be uniquely determined. All these implicit concepts belong to the intellectual machinery of our daily living and of theoretical thought well beyond the practical moment; they make up our common sense.

No one would deny that a scientist has to have common sense. But it is surprising that almost every epoch-making advance in scientific thought begins with an idea that sounds absurd and perverse and affronts people's common sense. When physical theories contradict one another or don't fit the demonstrable facts, the trouble usually lies in our way of seeing and describing the facts open

to our observation. Let us take an example from the history of civilization that we all heard about in our school days—the old conception of the earth and its location in space, which ruled both geography and astronomy until about 500 years ago.

The earth was generally taken to be a disk floating in space, and the heavenly bodies were thought to rise beyond its eastern edge, sail through an airy dome that arched over its expanse and sink behind the western edge. As long as this view prevailed, the geographical directions of the earth—north and south, east and west, upward and downward—could be simply extended into space as absolute, cosmic directions. All terrestrial life was, of course, supposed to be on top of the disk. Even the belief that the earth was round, which was fairly prevalent by the sixteenth century, did not materially disturb the picture of its celestial setting; so

"down"—the realization that these terms can have meaning only in relation to the earth; namely, "away from the center of the globe" and "toward the center of the globe," respectively. A startling consequence of this new meaning was that the earth has no underside. All its places are equally "on top."

To think of the universe as a space to which "up" and "down" could not be applied was a monkey puzzle. How else could one think of space? Astronomers working with purely mathematical constructions could dispense with spatial imagery; they gradually realized the limited and relative meaning of those words, but other people could not reinterpret them in any illuminating way. This was probably the first time the philosophical concepts of science really parted company with common sense, so that intelligent persons even, without special logical training, could neither agree nor disagree with what the "natural philosophers"—whom today we would call "scientists"—said about cosmic space.

Perhaps no one except a few discerning churchmen realized from the beginning how revolutionary the new astronomy without absolute directions was, how it deprived the universe of all fixed places, realms of glory, of trial and of punishment, and confounded the religious world-image based on the spiritual meanings and physical symbols of up and down, high and low. To them it did presage much more than the defeat of all their Aristotelian physics; it threatened to shatter the stage on which the drama of creation and salvation was taking place and to jeopardize its clear rational structure. When Galileo invited three eminent divines to look through his telescope, they could not bring themselves to view what one of them called "the disgusting spectacle of nature contradicting reason." The scientists themselves, having made the philosophical shift from orientation on the earth to a different sort of orientation without any fixed basic directions, only gradually realized the full implications of their working notions—that objects had no weight in space, but what functioned on earth as weight had to be redefined as "mass" in the new astronomical heavens—and other equally radical new conceptions which were perfectly natural in their frame of thought but sounded bizarre to the uninitiate.

Many facts, of course, were far from clear, but one of the special assets of a logically trained mind is the power to suspend an unsolved problem, knowing all the time what and where it is, until some new idea or finding moves it forward for solution. For instance, the reason why earthly objects fall to the ground—that is, toward the earth—was not understood until Newton expressed the concept of gravity in such a way that it applied to all objects without exception, planets in galaxies and apples on twigs.

Today's common sense has caught up with the pioneer thought of men like Galileo and incorporated Newtonian physics as part of its own warp and woof. But it has no sooner done so than its smooth fabric is ruptured again by the unimaginable scheme of a new geometry dealing in more than three dimensions and the mysteries of relativity physics. Evidently we are not through yet with the "Copernican revolution"—the philosophical reinterpretation of experience which gave rise to our physical sciences and is still egged on by their growing demands. Our epoch-making scientists like Einstein and Planck are known as physicists, but they are, above all, philosophers of modern science; it is due to their abstract logical thought that we have our highly (Continued on Page 56)

To a First-Time Mother

By Helen Rittell

Relax, my dear. Your little elf
Is just an amateur himself.
So if your hands, so newly filled
With tasks, seem somewhat less than skilled,
Relax, I say. This little pinkling
Doesn't have the slightest inkling
That you are new to baby lore—
He never had a mom before!

the proposal of some intrepid adventurers to sail westward in search of India—a known country and therefore on top of the earth—naturally met with the objection that on the nether surface the adventurers would be upside down. There could be no water or life, but only solid matter on the underside of the hypothetical globe, for anything else would fall off. I do not know how people like Columbus thought of the passage through the antipodes; they did not expect to be upside down, but their spatial concepts probably defied geometrical thinking. They were in open conflict with common sense.

Since Columbus did not reach India, the facts were not actually given for some thirty years. But when Magellan's men, who had sailed westward around Cape Horn, came back to Europe from the east without having fallen into space or ever having found themselves walking the deck like flies on a ceiling, it became clear to all candid minds that common sense can play us false. This must have caused some consternation. An undeniable physical fact contradicted an equally undeniable truth implied by everybody's most elementary knowledge of space. How could an object standing upright on a globe be moved through an arc of 180 degrees, always keeping the same end in contact with the globe, and not be upside down when it reached the underside?

The solution was a philosophical insight into the meaning of "up" and

(Continued from Page 54) concrete, tangible products of technology.

This technology, however, has stirred up hornets' nests in all human affairs by utterly transforming the conditions of life in every quarter—domestic, economic, political, social. Industry has changed beyond recognition, commerce spreads over countries that were scarcely known to exist a generation ago, new nations emerge, governments rise and fall, wars become monstrous. Every change carries its own problems with it. The marriage pattern of lifelong partnership is breaking up, divorce being quite generally countenanced. What becomes of our time-honored social unit, the family? If that disintegrates, what can we put in its stead? Probably nothing; you can substitute one element for another only where the same place is to be filled, but with a radical change in the social structure of all mankind, the place for a fundamental social unit is not likely to be the same.

Again, what substitute could we find in the future for international wars, now that destructive powers are so great that to settle disputes by bombs is like roasting a pig by burning down the house? In a political setup that follows the lines of a world economy, as some future setup probably will, there may well be no place to fill with a "substitute for war." Substitutes for spontaneous fighting, yes; but international wars are not spontaneous. They are prepared moves that belong to the old system of tribal organization, which is being strained to its uttermost limits today when the tribes have expanded into giant nations.

Faced with such staggering and sudden changes in the conditions of life—all sparked by the meteoric new physical science—we realize with dismay that we have no science but physics (chemistry has lately come into the same camp, and biology, as it becomes scientific, is merging into chemistry) and that we can plan and control nothing but machines. Where are those social sciences that we have been hearing about since the early nineteenth century? We hear about them still, and thousands of able people are ranked in their service, but we certainly do not feel we can bank on them to do wonders in a time of crisis, as we trust nuclear physicists to meet any demand.

How deep does the difference between the physical and the social sciences go? I think it goes to the philosophical roots of knowledge, the conceptual substructure. In the study of society—psychology, anthropology, jurisprudence, pedagogy and other departments—there has never been a radical break through the framework of common sense by entirely abstract concepts. No Copernicus, Galileo or Newton has defied imagination with completely unfamiliar elements of reality and silly-sounding propositions which prove to be true. The technical terms of social science are familiar words, such as "need," "motivation," "interest," "dominance," which are commonly defined in terms of other equally familiar words, with the result that their ordinary meanings are somewhat narrowed or widened, but not radically transcended. They cannot be manipulated, combined and operated on like true abstract elements, but only used to express facts first established in common-sense terms. The philosophical groundwork of our moral and social thinking has not been done, and until it is, the social sciences will not become intrinsically scientific.

Yet it may be that the great breakthrough of abstract thought is just in the offing, because something is happening in society similar to what happened in the physical realm 500 years ago, precipitating the "new natural philosophy." The

words we have always used to describe and discuss social situations seem to lose their precise meanings, because we have to fit them to circumstances that did not exist before. There was a time when we were quite sure what the word "community" meant—a group of persons living in a certain locality and sharing all public interests, and some private ones, with other persons in the same locality. It made sense to ask whether an individual belonged to one specific community or another, whether Mr. James Henry Abbington was a Bostonian or a Philadelphian. But now we talk about the "world community" and think we are merely stretching the term. Can we still ask whether Mr. James Henry Abbington is a member of that community or another? Does our mere extension of a term really make him and comrade Ivan Ostov and chief warrior Mpungu members of the same community in a precise sense—dwellers in a certain locality who hold their public interests in common? Surely the sense of the word has slipped, but no one knows in what direction or how far.

This is but one example of how philosophical issues slowly take shape in political and moral life. There are dozens of terms in our general discourse which have taken on new meanings, usually without quite losing the old, so their import is blurred like a double-exposed picture. When ideas are in such a state of disintegration, the time is ripe for entirely new forms of conception, a radical reinterpretation of the major facts—in short, for a philosophical advance in the field of baffled research.

Why is that great reconstruction not under way? Because we are not training enough philosophers to cope with so tough a problem. Our leading philosophers talk about man, society and God, about anxiety, commitment, identification and other currently interesting problems of life. They do so in response to the widespread cry for religious rescue which arises especially from Europe after a half century of disaster—loss of faith, loss of physical and mental security, broken fortunes and broken morale. But movements like existentialism or our own personalism and new humanism are not intellectual revolutions. They develop attitudes, not instruments of thought.

The physicists who laid the conceptual foundations of their science were men of philosophical genius, trained for the task of abstract reasoning because reason was

valued and cultivated in their day. Such genius has two essential factors—imagination and logic. Logic is analytic and critical, but not by itself constructive; that is, it provides no formula for producing new ideas. It can only permit them or expose them as inconsistent and unusable. Only imagination can furnish new ways of seeing and putting things. But imagination has its own dangers—it is essentially unrealistic and tends to run riot. We all know from our dreams how far it can range. If imagination were the whole stuff of genius, what geniuses most of us would be between midnight and morning! Perhaps we would wear electrodes on our heads with gadgets to record our achievements.

In dreams or in waking life, imagination is spontaneous; and its special forms—pictorial, poetic or conceptual—are native to the individuals who possess them. But the instrumental factor in genius can be acquired. Logic is the tool of scientific imagination. In a mind which uses that tool with ease, logic has a feedback function—it guides the creative imagination in progress from moment to moment. This saves the trained thinker from constantly scrapping big, developed ideas because they are illogical and having to start anew. He rarely gets as far as that, though it may happen that a thrilling inspiration is finally found to contain some hopeless fallacy. Most of the time a purely habitual, logical control monitors his mental processes.

But all these reflections do not answer the question why the social sciences cannot get off the ground. If they require basic research—conceptual analysis, new interpretations—why do we not train people for the task?

The answer points to a grave condition in our whole educational pattern, visible on every level, from symposia and commencement speeches to the courses listed in school catalogs—we do not cultivate philosophical thought at all. We do not value abstract conception and pure logic, nor train our youth in system construction or formalization of any sort. We do not even teach algebra as a generalization of arithmetic, nor point out that the negative numbers exemplify the same abstract structure as the positive, so their orders are mirror images of each other. We teach algebra as a set of instructions for solving problems in a conceptual frame vaguely taken for granted. Problem solving is our obsession. Even rats and monkeys in our laboratories spend

their "behaving" hours in the problem box, and their food-getting and shock evading are supposed to furnish the blue print for our own intelligence.

From such an educational background no band of brilliant philosophical mind can arise to create a new frame of thought and set the social sciences on their way. Genius naturally arises from a high level of ordinary professional work, and this in turn requires a general popular interest. We have few first-rate poets today, because the lay public does not read, write and recite poetry as it did a hundred years ago. We do have great painters because painting commands both popular and expert interest, galleries and museums are active, and amateurs numerous.

Many people are aware that humanity is on the edge of destruction for lack of social concepts to match its physical powers, and a growing number of us even realize that intensive philosophical work is the need of the hour. But there will be no philosophical pioneering until we reform our whole educational scheme and aim it squarely at the cultivation of reason, not viewed as a device for getting food and evading foes, but as a precision instrument for a high imagination to work with. Only then will great thinkers arise—this time, probably, in the sciences of life—as they arose in the Renaissance to give astronomy and physics the impetus that still carries them. But without public sympathy, without a high level of competence in the relevant studies of psychology, ethnology and others—and a general stirring of intellectual life in lay circles—the most daring new ideas may be lost for lack of enthusiasts to follow them up. The outsiders cannot proceed alone; they have to keep contact with the homesteaders in their wake, who come to take possession.

Education is one of our urgent concerns today, because history has shown us dramatically the truth of Lord Bacon's dictum, "Knowledge is power." If the public mind ever fully realized that the spearhead of scientific progress is philosophical imagination and pure rationality, no practical difficulty could deter us from a revolution in the teaching of philosophy and in the demands made on philosophers to set the pace for the next advance of knowledge—the science of society. THE END

For readers who may wish to pursue the subject further, the following books are recommended:

Langer, Susanne K.
Philosophy in a New Key
New American Library
\$5.50

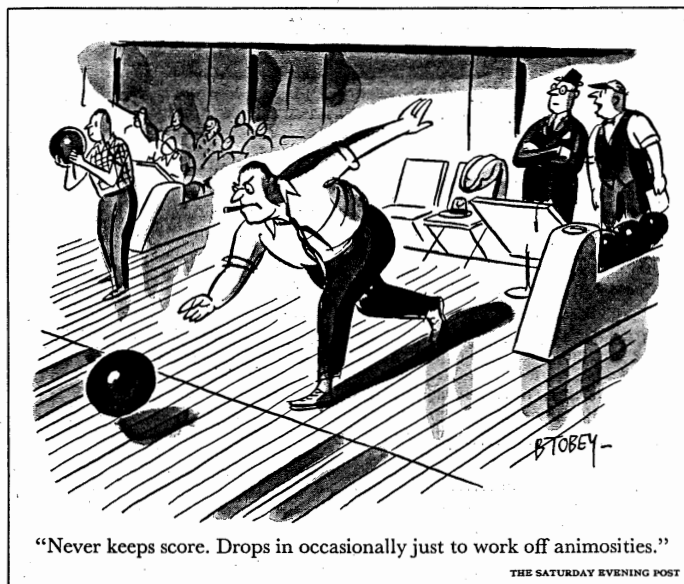
Hanson, Norwood R.
Patterns of Discovery
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\$2.75

Whitehead, Alfred North
Science and the Modern World
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