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METAPHYSICAL ADVENTURING

THE cry from both philosophers and scientists for a renewal of metaphysical thinking, on the ground that our physical thinking, divorced from philosophy, has gone awry, twisting and diminishing our everyday lives, deserves response. Metaphysics constructs the ideal world of pure reason where conclusions are true because they are logically necessary, and not because we have piled up compelling evidence in their behalf.

What is the best way to find out about metaphysics? Even a brief investigation will send the reader to Gottfried Leibniz (1646-1716), who proposed that the universe is made up of innumerable monads or indivisible units of consciousness, and that all that is results from various combinations of monads. Monads perceive, and their perceptions form structures which can be called souls. Humans are rational souls who can think about thinking and are therefore able to know the truth. In *The Monadology of Leibniz* (University of Southern California, 1930), Herbert Wildon Carr says in summary:

> The monads are not material atoms, for atoms are outside one another and so must have parts by which they adjoin one another. The monads are absolutely without parts. A monad has no extension, no shape, no position, no movement. The monads are distinguished from one another by the quality or character which differentiates each from every other.
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> The assemblage or aggregate of the monads is the real universe. This universe has neither extension, nor shape, nor position, nor movement, and it is not what we perceive. . . . We do not perceive things as they are but only as they appear. Their appearances are due to the imperfect way in which we perceive them. . . . Space and time are not real things, nor even perceived phenomena. Space is the order of co-existences in our perceptions, time the order of successions.
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> Though we cannot perceive the monads as they really are but only in their appearances yet we can know what a monad is for we have the notion of it in our knowledge of our own soul. We have only therefore to imagine that in every monad there exists something analogous to feeling and to what in general we give the name of perception. This gives us a positive knowledge of the monad. The monad we can say will experience change when it has different perceptions. . . .
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> An organized body is a body whose constituent monads have among themselves a harmony which makes them concur to a common end in an order in which they appear to depend on one another. . . .
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> There is nothing dead in nature. Everything in it is sentient, animated. . . . There is neither birth nor death in the absolute meaning. There are only metamorphoses and transformation. Our souls are not created at the moment of conception nor are they destroyed at death.

Toward the end of his book—which gives the ninety numbered paragraphs of the *Monadology*, some commentaries by Leibniz, and some of his own—Dr. Carr says:

> I will now state the monadological theory in the form in which I am myself prepared to defend. If the reals of the universe are monads, then there is no imaginable way in which two monads can perceive the same perceptions. . . . Every one of us may easily satisfy himself on this point by simple reflexion on experience. We only perceive our own perceptions and yet in our intercourse with one another we always refer our perceptions to a common world. This common world is not an independent universe acting on its own account. On the other hand, it is not an illusion. The common world which is the subject matter of intercourse is an ideal construction, and it arises in a metaphysical necessity. We can test that it is so. The same argument applies to it as that which is accepted by everyone in regard to the real world of physics. Physics does not deal with sense qualities, but with mathematical coordinations. The object of the physicist is the logical correlate of his measurements. The real world of physics is entirely ideal, not in the meaning that it is an arbitrary or fanciful construction, like the mythical and fictional æsthetic constructions of the poet, it is the necessary

> outcome of the need to introduce order into experience. According to the monadological theory precisely the same is the genesis of the common world of discourse.

Well, this may not be pure Leibniz—which would be too much for us at a single sitting—but it shows what we shall get into if we inquire about metaphysics. Dr. Carr's closing point, however, is clear enough. Metaphysics is another—probably better—way of *introducing order into experience.*

But why must it be so remote from what we are familiar with—so abstract? Well, the physical world, or its appearance, is quite familiar to us, but if you pick up a book on physics the familiarity departs in a hurry. For most people, it would take years just to find out what the physicists are saying. Its truth would be another matter.

To use other language, we could say that metaphysics sets out to decide what things really are, behind their changing appearances. Reality is what *lasts*—which has in it some principle of stability—which goes on and on, and is therefore worth talking about and trying to find out about. We can see the sense in such a quest. It seeks answers to persisting questions such as "Who am I? Where am I going? What choices do I have? Do I have responsibilities as well as interests?" and so on. All humans want answers to these questions. It is the spontaneous longing of the rational soul to want them, and we want them for practical reasons, too.

There are various ways of explaining the return to metaphysics in the present. Apart from the inner yearning to know something about "reality" and about ourselves, the reason given by Nietzsche may have the greatest force, since we are beginning to feel what he saw quite clearly nearly a century ago. Hannah Arendt explains his view in a correction of the popular understanding of his declaration that "God is dead":

> What has come to an end is the basic distinction between the sensual and the supersensual together with the notion, at least as old as Parmenides, that whatever is not given to the senses—God or Being or the First Principles and Causes (*archai*) or the Ideas—is more real, more truthful, more meaningful than what appears, that is not just beyond sense perception but *above* the world of the senses. What is "dead" is not only the localization of such "eternal truths" but the distinction itself. . . . The sensual, as still understood by the positivist, cannot survive the death of the supersensual. No one knew this better than Nietzsche who, with his poetic and metaphoric description of the assassination of God in *Zarathustra,* has caused so much confusion in these matters. In a significant passage in *The Twilight of Idols,* he clarifies what the word meant in *Zarathustra.* It was merely a symbol for the supersensual realm as understood by metaphysics; he now uses instead of God the words *true world* and says: "We have abolished the true world. What has remained? The apparent one perhaps? Oh no! With the true world we have also abolished the apparent one." . . .
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> In other words, once the always precarious balance between the two worlds is lost, no matter whether "the true world" abolishes the "apparent one" or vice versa, the whole framework of references, in which thinking was used to orient itself, breaks down. In these terms, nothing seems to make sense any more.

That is the real point. Without a rational source of values, the world we live in loses its meaning, and its order, too. To survive on earth, we need something like a heavenly perspective. Can this be proved? Of course not. Metaphysical propositions, criticism from a metaphysical stance, judgments based on the existence of a "true world," cannot be proved in a count-up-the-evidence way that we recognize as real proof. It is only that Nietzsche is now beginning to *seem* exactly right. "With the true world we have also abolished the apparent one."

Something more should be said. It is not true that we do not rely on metaphysics. We always rely on some kind of metaphysics—usually bad metaphysics, because of unexamined assumptions—even when we pretend or claim to have outgrown it. All science is honeycombed with metaphysical assumption. One need read only a single book, E. A. Burtt's *The*

Metaphysical Foundations of Modern Physical Science for this to become plain. The matter is exactly as F. H. Bradley put it in *Appearance and Reality* back in 1925: "The man who is ready to prove that metaphysical knowledge is wholly impossible . . . is a brother metaphysician with a rival theory of first principles." The question, Bradley said, "is not whether we are to reflect and ponder on ultimate truth . . . The question is merely as to the way in which this should be done."

Some of the difficulties of metaphyical thinking have already been made apparent. We are not *used* to thinking abstractly, even if we are able to recognize its value. We have to school ourselves to feel the force in abstract ideas, and this is important simply in order to distinguish a well-reasoned proposition from a weak one. But the scientific abstractions, it will be said, even if we don't understand them well, are at least agreed upon by a consensus of experts. Or they used to be. This is certainly the case. Agreement among metaphysical thinkers is much more problematic. Metaphysics, if it is truth, is *subjective* truth. Its demonstrations are not public in the sense that they compel admission in the same way that physical truth does. Metaphysical proof is rational, not materially demonstrable. So we are threatened by uncertainty right from the beginning.

Well, but uncertainty is a part of human life. Most of life, it often seems. That revives the argument for scientific method. Science was intended to eliminate uncertainty from fact and ambiguity from knowledge. Don't think, find out, its advocates said. There is a measure of sense in the advice, but you have to think in order to decide what you want to find out. So, actually, thinking cannot be eliminated. If you don't think in planning the practice of science you are no better off than the man in the street with his hunches and guesses and prejudices. And even if you do think, and think rather well, you may still make serious mistakes. Albert Einstein, the greatest scientist of our time—the man who called President Roosevelt's attention to the possibility of an atomic bomb—shortly before he died replied to the question of what he thought about the situation of scientists in America by saying:

> Instead of trying to analyze the problem I may express my feeling in a short remark: If I would be a young man again and had to decide how to make my living, I would not try to become a scientist or a scholar or a teacher. I would rather choose to be a plumber or a peddler in the hope to find that modest degree of independence still available under the present circumstances.

He seems to have thought that "finding out" had proved a mistake. So scientists have their insecurities, too. Scientists also have long periods of certainty, and it is those securely confident times which have given so much strength to the Don't-think-find-out rule, and have encouraged the contemptuous dismissal of "metaphysical" thinking.

But those times come to an end, as Thomas Kuhn has shown, and then the theorists find it necessary to start afresh with new postulates or assumptions. Jacob Bronowski called this the act of "self-reference." When systems of thought such as physics no longer work as they are supposed to, the men who labor in this field must go into themselves for a new synthesizing idea. Bronowski said that artists and writers need to do this all the time, but scientists only at intervals. Their systems work for a while, requiring no constant renewal. The temporary security, then, that we obtain from the scientific method is really the creation of a handful of exceptional thinkers and technologists.

The metaphysical thinker, on the other hand, is always on his own. Like the artist or poet, he has to find his own way, and all the way, by acts of self-reference, with only insight and reason to guide him. He can find no confirming reference in corporate truth; only the test of life's experiences will tell him how close he may have come to the way things really are. But meanwhile there is

companionship in the resonances of other metaphysical thinkers.

Today we are beginning to see that we are metaphysicians all, and that the scientific outlook is under severe trial, and will almost certainly be subjected to far-reaching revisions. There may in time prove to be great moral health in this impending change. It is always healthful to be returned to some form of self-reliance. It is always strengthening, if at first frightening, to discover that we must become our own authorities.

Metaphysics has promise of another sort. By its holistic nature it takes account of regions of human experience that science had by firm definition to neglect or ignore. Consider for example the phenomenon of clairvoyance. Drawing on the resources of metaphysics, a thoughtful philosopher, H. H. Price, of Oxford University, proposed some years ago that the familiar way of regarding clairvoyance and other supernormal powers may be quite wrong, or at least ineffectual. Writing in the British journal, *Philosophy*, for October, 1940, Prof. Price turned the question around:

> Perhaps what we should seek a causal explanation of is the absence of Clairvoyance rather than its presence? In that case the proper question to ask, anyhow in the first place would be this: Why is our ordinary perceptual experience limited in the way it is? Why is it confined to those material objects which happen to exercise a physical effect upon our sense-organs? Ought we perhaps to assume that Clairvoyance is our normal state, and that ordinary perception is something subnormal, a kind of myopia? The question you ask depends on the expectation with which you begin.

This makes evident the value of metaphysical freedom in thinking. You *can* turn such questions around. It *is* possible that we are psychical and spiritual beings, and were, before we became physical beings, and that the higher perceptions of which we were once capable are now blocked out by our cumbersome equipment of bodies and senses. Prof. Price shows the ranges of conception metaphysical thinking makes possible:

> Ought we to have expected that by rights, so to speak, every mind would be aware of everything, or, at any rate, of an indefinitely wide range of things? The puzzle would then be to explain why the ordinary human mind is in fact aware of so little. We might then conjecture that our sense organs and afferent nerves (which, of course, are physiologically connected with our organs of action, i.e., with the muscular system) are arranged to prevent us from attending to more than a small bit of the material world—that bit which is biologically relevant to us as animal organisms. We might still have an unconscious "contact"—I can think of no adequate phrase—with all sorts of other things, but the effects of it would be shut out from consciousness except on rare occasions, when the physiological mechanism of stimulus and response is somewhat deranged. . . .
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> My second suggestion is already prefigured in my first; but as it will shock some of you, I had better state it quite openly. If we are to give an explanation of Clairvoyance, I am afraid we may have to look for light in works of Speculative Metaphysics. I myself should be disposed to look for it in the Monalology of Leibniz and in the more speculative parts of Lord Russell's book *Our Knowledge of the External World*, which admittedly starts from a somewhat Leibnizian point of view. But these are not the only metaphysicians who might be useful. For instance, we might find help in Berkeley too.

He offers here a brief apology for such forays into imaginative speculation, pointing out that the Non-Euclidian Geometry on which much of modern physics relies was once regarded as having no application at all to the physical world. But physicists learned to use and profit greatly from this Geometry.

> Now I suggest to you that the theories of some speculative metaphysicians may turn out to be useful in a similar way. At the time when they were first invented they may have been purely deductive systems; whether their inventors realized it or not, these systems may have had no relevance one way or the other to the empirical facts known at the time, so that they were incapable of being either confirmed or refuted by experimental evidence, and the Positivists of the day could plausibly regard them as nonsensical. But when we consider the new facts which Psychical Research has brought to light, some of these

> metaphysical speculations begin to wear a different look. We find that some of them do at least provide a conceptual framework into which supernormal cognition can be fitted, whereas it appears to be an inexplicable oddity so long as we stick to our ordinary (ultimately Cartesian) views of mind and of Nature.
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> For example, in the Monadology of Leibniz every monad has clairvoyant and telepathic powers, not occasionally and exceptionally, but always, as part of its essential nature. Every monad represents the entire Universe from its own point of view (Clairvoyance) and the perceptions of each are correlated with the perceptions of all the rest (Telepathy). In fact, what Leibniz calls "perception" is always both clairvoyant and telepathic. Moreover, he tells us that this perception is to a greater or lesser degree unconscious. I do not say that the system of Leibniz is workable as it stands. But I do suggest that we may gather useful hints from it. . . .

This is the sort of invitation you get from metaphysical thinking. The rigor must be your own when you start borrowing from thinkers like Leibniz. But they set a rather good example. Prof. Price goes on, and we can hardly do better than quote a little more from him:

> With these somewhat disturbing thoughts in mind, let us turn back to Clairvoyance. If we determine not to be frightened of metaphysics, three hypotheses suggest themselves. First, we might suppose that there is an *omnisentient consciousness* which is aware of everything that is going on in the material world, and possibly of some future events as well. If you like, it would be a kind of God; but the present article does not oblige us to attribute intelligence to it—whatever other arguments might do—still less moral predicates of any sort. It wil1 be safest just to call it a "World-soul," if you want some old-fashioned name for it. This omnisentient consciousness would enjoy unlimited clairvoyance; and human clairvoyance would be due to a telepathic relation between ourselves and it.
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> Secondly, we could suppose with Leibniz that every mind clairvoyantly perceives or represents the world from its own proper point of view, and that each is telepathically correlated with all other minds. We should then have to explain why there seems to be so little clairvoyance, and why the vast bulk of our perceptions or representations remain unconscious.

The fruits of self-reliant metaphysical thinking are becoming impossible to deny.

REVIEW
IN BEHALF OF EYES

ONE of the pleasures of reviewing for MANAS—or any paper independent of the rhythms and necessities of the market system of book distribution—is that you can turn to anything concerned with communication, past or present—book, pamphlet, magazine, or broadside—and write about it freely, with no obligation to anything except the material at hand. So, from time to time, we give attention here to the not so ancient art of printing. For those who work every day, often for long hours, with printed materials, typography and format take on more than ordinary importance. The publication that does not try to club you into submission becomes a welcome friend. Your eyes are gently invited, and where the eyes go willingly the mind is inclined to follow. (Some people, alas, *like* to be intimidated by their sources.)

About every two weeks the pile of exchanges received by MANAS grows to inordinate dimensions and must be reduced. This means exposing oneself to, say, fifty or a hundred thousand words within a few hours. Nobody, of course, can read that many words properly in a few hours, so, for at least some of the time, one reads the papers that are easy on the eye, papers whose design shows some sort of respect for the reader. This selective attention is usually well rewarded. In a paper called *The Neighborhood Works*, published twice monthly by the Center for Neighborhood Technology (570 W. Randolph Street, Chicago, Ill. 60606) we found a usefully hardheaded discussion of the "neighborhoods" of Chicago—about which, the writers say, much undeserved nostalgia has been developing.

What is a neighborhood, Chicago style? Invited to answer this question, a Malcom X College student said it is a place where there are more neighbors than hoods. Charles Bowden and Lew Kreinberg, the latter identified as "a long-time neighborhood activist and historian," regard talk of Chicago neighborhoods as "piety shared in smoky church basements by syndicate aldermen and the Bohunk, Mexican audience." Quotation from these two continues:

> Like all pieties it carries a cargo of meaning and feeling that exceeds the known reality of the city, past and present. For Chicago has not been a place that gave much thought to how humans would find shelter, food, God and community. The thinking and the dollars went into transportation of goods, buying and selling, the sweating in noisy factories, the iron horse, the boat, the truck. The neighborhood occurred by happenstance as humans clustered in the empty niches between some stacks and rails and canals.
>
> Chicago is called the city of neighborhoods because the small amorphous units were the currency most humans in the city could perceive. Thinking often confuses the neighborhood with village: this could be a fatal mistake. The village in the mind and on the European earth was a place where your ancestors were buried and where you would be buried. Neighborhoods were strategies, not institutions—temporary places of temporary people. They were a way of understanding what is happening and what is being proposed—a housing project, a freeway—not a commitment of families to place through time.

A way of confirming this verdict would be to read again Irving Stone's account of the Pullman strike in Chicago in the 1890s, in *Clarence Darrow for the Defense.* And then, to recognize that other large cities are similar in character, one might return to Harriette Arnow's *The Dollmaker*, which tells what may happen to the families of working people when they move to Detroit.

Kreinberg and Bowden have more to say:

> One of the forthright features of the Chicago districts where humans lived like animals was that they were built so that humans in them would live like animals. Densities beyond Calcutta. No sanitary facilities. No adequate garbage pick-up. And for the work, damn near no wage. They did not decay; they came fresh from the architect's dean offices as blueprints for ruins. . . .
>
> If you want to save the neighborhoods, realize this is a radical act. They have been places to pass through, not ground on which to make a stand.

The *Neighliorhood Works* reviewer concludes laconically: "Before we can save neighborhoods, Kreinberg and Bowden assert, Chicagoans will have to create them." Well, cities *can* have real neighborhoods, as Jane Jacobs has shown, but Chicago may not be the place to look for them. According to the monograph by these writers, there never were any "good old days" there.

We come back to the printer's art, to give attention to a brief review-essay by Leslie George Katz in the *Hudson Review* (Winter 1978-79). Anyone active in publishing during the past few years is well aware—perhaps painfully—of the upheaval that has overtaken the craft:

> Computerized film-set type and high speed lithography and electronic printing machines have in less than a generation widely replaced letter-press printing from metal types, a process essentially the same in principle as the first printing techniques five hundred years ago. The latest developments of electric printing and lithography, however, are simultaneous with a revival of interest in calligraphy and handwriting, and their reproduction by printed means. Handwriting and calligraphy provided the original source for the printed alphabet, and one of the magics of printing as an art is that its fartherest developments remain directly based on its original roots, just as a word electronically amplified is still first formed by the tongue and the lips.

Mr. Katz's definitions ought to be emblazoned in graceful Garamond or perhaps Electra in posters on the walls of every editorial office:

> Good printing, by hand or machine, serves the text, allowing the sense of the words to emerge enhanced rather than encumbered. . . . Black and white are as natural to the printed word as green to grass and blue to sky. The sanity of printing is in its partnership with language as well as its service to meaning. It has the benefit of being a physical translation of the spirit, as music and dancing are.

Two books stirred this writer—who is publisher of the Eakins Press—to speak of these things. Both deserve mention here:

> Joseph Blumenthal, dean of American printers, author of *The Art of the Printed Book,* 1455-1955, has recently published a history of printing in America from its beginnings to the present. His book is a cogent and powerful chronicle an imperturbable judgment of his predecessors, peers, and of young printers, from the perspective of a lifetime of high achievement that continues. . . . "The art of the printed book," he writes in conclusion, "is one of the slender graces of civilization, works its charm on each new generation. . . . The twenty-six letters of the alphabet are still the basic forms with which today's typographic designer fashions his books, as they were for the scribes in the completion of their beautiful volumes on vellum. Despite the vastness and the complexity of today's dissemination of the printed word, the craft of bookmaking still pursues its own unyielding ways."

To understand what Mr. Katz and Mr. Blumenthal mean here, it would be better to have illustrations than more words. One might look, for example, at one of Eakins' productions, *Payne Hollow,* by Harlan Hubbard, issued in 1974. Just naming the book makes you remember the charm of its pages, inseparable from that of the writing, as it should be. Then there is Wendell Berry's *The Unsettling of America* (Sierra Club) which has a similar effect.

Fine printers keep these qualities alive for all publishing. While historians are able to list such craftsmen, the casual recollections of a reviewer may be as good evidence of their contribution from century to century. The works we have in mind are alive in the memory for two reasons—the author and the form of his book. One of them was issued in 1898 by Thomas B. Mosher in Portland, Maine—Charles Johnston's translation of the Upanishads. Mosher also published Olive Schreiner's Dreams. If you've ever owned a perfectly designed Mosher book, you've not forgotten it. Then, coming later, in this part of the world, are the books designed and printed by Saul Marks, who died a few years ago and whose shop, the Plantin Press in Los Angeles, continues under the practiced eye of Lillian Marks, his widow. Whatever Saul Marks printed inevitably became a notable example of the great tradition in printing. (A deserved appreciation of him by Lawrence Clark Powell appeared in *Westways* for

November, 1975.) Fine printing changes but little, over the years. Mr. Katz says:

> An extraordinary fact is enunciated in [Blumenthal's] phrase "unyielding ways." The new, sophisticated developments, while demanding adaptation and inviting experiment, do not appear substantially to affect the standards of typographic design and bookmaking that have been maintained, defended, taught—passed on from one printer-designer to another—since the "mysterious art" of printing began. The secret remains in skill and workmanship. Three generations of accelerating blather about the inevitable hegemony of technology over form and content in all the visual arts (including painting, sculpture, architecture), while it has in printing developed a brood of new typefaces, hasn't so much as attenuated the serif of a single letter of most of the alphabets used in printing today, including the letters on the page you are reading.

The most famous of the printer's printers was undoubtedly William Morris, and the second book Mr. Katz discusses is about him—*American Book Design and William Morris* by Susan Otis Thompson. This writer, he says, shows how,

> by means of the energy, brilliance and example of one determined man who had a clear idea, the values of handmade could not only survive the onslaught of the industrial but emerge enhanced. Morris did not hate the machine itself, he hated debased civilization. Paradoxically, his revolt may be said to have provided American and British printer-designers with an unexpected momentum and courage that enabled them to use and develop machine printing intelligently.

It would be a very good idea for critics who write about the debasement of civilization to celebrate more often the qualities and excellences of the craftsmen who keep it alive. And an English class which learned to put into print selections from, say, *News from Nowhere*, and did it creditably, might even achieve a degree of literacy, as time goes by.

COMMENTARY
A FEW FIGURES

READERS may wonder a bit why we find the bad news about U.S. roads and bridges (see Frontiers) in a British quarterly. Aren't there domestic sources for such information? Doubtless there are, but the information turned up handily in Edward Goldsmith's article in the *Ecologist Quarterly,* and meanwhile, in the *Washington Spectator* for April 15, we came across this confirming paragraph:

> The interstate highway system is falling apart 50% faster than road crews can repair it. One reason, the heavier weight of trucks. The Federal Highway Administration figures that it would cost $329 billion to get the roads back into shape. There are an estimated 93 million potholes in the nation's roads. This comes at a time when the funds and services of AMTRAK are being seriously curtailed.

Since "problems" are not taken seriously without supporting statistics, some other figures in the same issue of the *Washington Spectator* seem worth repetition:

> In this country, says Rep. George E. Brown Jr. (D-Cal.) "the liquor industry spends about $310 million on advertising, much of which is returned to the industry in the form of advertising deductions. By comparison, in 1976, the Federal Government spent $313 million to combat alcoholism through research, training and community programs. Alcoholism costs the U.S. about $44 billion annually in terms of job time lost, decreased productivity and health costs. "Studies show the rising alcoholism rate is due largely to the use of alcohol by people who have traditionally been in from moderate- to low-income brackets. In the past 20 years the percentage of women who drink has skyrocketed from 55 to 71%.

Bad as this may be, a far more depressing group of figures is given in the May *Harper's* by Scott Spencer, who writes on what he calls the New Dark Age of childhood. He suggests that the young are in flight from life as they know it:

> On the sharp statistical rise are: teenage and child pregnancy; teenage and child drug addiction; teenage and child prostitution and pornography; teenage and child venereal disease; truancy; illiteracy; and criminality. But the most terrible aspect of the flight from childhood is suicide, the third leading cause of death among American children and teenagers (under eighteen) following accidents and murder.
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> The trend in the United States is repeated in other nations. For example, the suicide rate for West German children has nearly doubled in the past ten years: in 1976, 1,468 West Germans between the ages of ten and twenty-five killed themselves. The suicide rate for children in France shows a consistent rise. And in Japan, the number of suicides among children under nineteen has increased 15 per cent since 1977.

Comment on such terrible trends seems futile; what can one say? The *Harper's* writer proposes that some parents of today seem to resent their children, whose costly upbringing interferes with the "lifestyle" of affluent consumption. The truth of the matter may be that an age is dying before our eyes, and taking its toll in so many ways that listing them is both profitless and impossible. Perhaps, at the same time, another age is being born—there are many promising signs, although, like babies, very small and delicate—and perhaps, again, some notice of the agonies of decline will hasten its coming.

CHILDREN
. . . and Ourselves
REVIVAL OF GAIA

READER who writes in appreciation of Theodore Roszak's "Skeptics and True Believers" (March 7) adds some comment and asks a question:

> We are a nation of immigrants—most of us have arrived during the past hundred years. In these hundred years we have produced great physical changes in this continent—none of them in the least influenced by the knowledge of the indigenous (*experienced*) people. But something that I never hear said is the fact (which as an uneducated immigrant is really obvious to me) that in these hundred years we have slaughtered more culture, "ethnic" loyalties, loyalties to holy images, than anyone since the Roman conquest of the Barbarians. Now what does sustain us all? Only illusions, belief, makeshift ideals? Of course not! There is a lot here—reality—"BEING," in the German sense of "all that is." . . . Most of us sense that the age of aristocratic imagination is going fast and that we have to learn to put our feet on the ground, THE GROUND . . . Since we have lost our gods, the "ordinary" people have gained all sorts of powers. Since we have powers, we will also have to atone for our own sins.

The question:

> I do not know what Theodore Roszak's religious beliefs are but I would be greatly surprised if there is in his life a good old conventional God. So what is it that sustains him? I would consider it most advisable if he would tell us.

While no one else can speak for Mr. Roszak, we have the impression, having read his books, that he is sustained by the feeling that he has *some work to do*. Meanwhile, as to our lost "gods," he seems to think it time to revive at least one of them—a "goddess," rather. In an article in the *Ecology Center Newsletter* for last October, which echoes the theme of his latest book (*Person/Planet*), he begins by saying:

> Suppose the earth is a sentient being, capable, in her own mysterious way, of intelligent adaptation and skillful maneuver for the sake of defending her life-giving mission in the universe.
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> If you wish, take the supposition to be no more than a convenient hypothesis and formulate as objectively as possible—as in the "Gaia Hypothesis" of Lovelock, Epton, and Margulis, which proposes that we conceive of the Earth's "living master, the air, the oceans, the land surface (as) parts of a giant system . . . able to control temperature, the composition of the air and sea, the pH of the soil and so on, so as to the optimum for the survival of the biosphere. The system (seems) to exhibit the behavior of a single organism, even a living creature.
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> But if the hypothesis is convenient, why not yield to its poetry as well? For the Earth is in no way more beautifully known to us than in the ancient imagery of goddess and mother. (And then recall what James Watson said of the double helix: In science, there can be ideas that are too beautiful *not* to be true.)

Who was or is Gaia? According to reference books (what a pity such things must be "looked up"!), Gaia is the second person of the oldest Greek trinity—Chaos, Gaia, Eros—and in a later transformation, Venus. More easily understood, perhaps, she is in Greek tradition the Mother "of all things living," as the D'Aulaires put it in their *Book of Greek Myths* (Doubleday). In Roszak's essay, she is the loving earth-mother who devises means to instruct her erring children through corrective influences and disciplining events. For example, she brings "a small contingent of biologists around to the most comprehensive science of all, the systematic study of the planetary whole [Ecology], as the arena where culture and nature interact." At the same time "let us imagine that"

> the Earth, in the urgency of her need, hits upon another strategy of survival, a course of wise indirection that does not at first glance look even remotely "ecological." She *transforms our moral identity*, working from within us to find one motivation that is most capable of changing our bad environmental habits. *She awakens our sense of personhood and makes common cause with it.*

How does this work?

> We are undergoing a subtle interaction which the Earth uses to protect herself from our ecocidal pressure. As the scale of industrial activity mounts, so also (at least along one important line of

> contemporary dissent in Western society) do our expectations of personal freedom and fulfillment. This, in turn, becomes an obstacle to the further expansion and integration of the system. So the system begins to *dis*integrate, a fitful process that gets registered in the news of the day as truancy in the schools, the soaring divorce rate, declining morale and rising turnover in the workforce, the demise of military conscription, a growing reluctance to compete and conform, a general mistrust of leaders, experts official ideals, public institutions . . . in brief, the spreading ethos of cynicism and recalcitrance that social theorists refer to as "the twilight of authority," "the crisis of legitimation," etc. But this disintegration is essentially creative, for, in our rising sense of personhood, we find a peculiarly post-industrial quality of life that is wholly incompatible with the mass processing of superscale systems. So we are moved instinctively to assert the human scale that will give us attention, respect, tender loving care. In asserting the human scale, we subvert the regime of bigness. In subverting bigness, we save the planet.

What is wrong with bigness?

> The bigness of economic and political structures, *whether under private or socialized auspices,* estranges person from person, private conscience from public responsibility. It dulls our moral sensitivities, forcing us toward impersonal, hierarchical, domineering conduct. Only in this age of Frankensteinian science-technology have we come to see that human beings can create systems that do not understand human beings, and which will not serve their purposes.

So the Earth-Mother, Gaia, watching over all her kin, awakens both scholars and ordinary folk to a deeper sense of meaning, and the need to express it personally in their lives.

We surely need a god or a goddess to contain the diverse strands of natural wisdom governing all the operations of nature, and why not have a *goddess* to represent their delicate coordination in behalf of humans and earth's welfare? Personification may be the only way to convey a meaning so complex. The justification is like that given by Krutch when he says that "the only reason for composing a novel or play instead of a treatise is that the author is unwilling to reduce to a formula an insight which he can present without violation only through a concrete situation whose implication she can sense but only sense."

This amounts to an epistemological justification of polytheism. It seems fair to say that the gods are representative fictions, just as the formulas concerned with atoms and their numerous parts are representative fictions physicists could not do without. But in Gaia's case the goddess is *alive* and intelligent, and therefore, unlike atoms, useful in relation to human meanings. There may be hazard in any pantheon, but the hazard of doing without the gods may be the greatest of all. So Roszak and some others are bringing the gods back to life.

What about children in relation to all this? Well, a generation nourished on hobbits and star wars might be wholly receptive to a revival of the gods. Meanwhile, they learn *a way of thinking* that will serve them well throughout their lives. Myths provide a means of generalizing human values in terms of their fullness and multiform application. Explaining the Gaia hypothesis, a *Mother Earth News* writer said:

> A simple truth of life on earth is that the whole survives or nothing does . . . Rather than justifying human function as it has been known on earth, man is well overdue for a dose of humility and a move toward picking up his responsibilities. The responsibilities of functioning as an integral, sensitive, and intelligent part of the natural organism of this earth . . . and of letting his gift of self-consciousness be exercised to the blessing of the whole of creation of Life.

FRONTIERS

The Encircling Gloom

ARTICLES in the *Ecologist Quarterly* for last autumn make evident two main happenings in the world: Changes in human circumstances and changes in ideas. Our circumstances are breaking down at a hastening pace and new attitudes are being born from our ideas.

The breakdowns are various. Most noticeable is the rising cost of practically everything, making people feel poorer all the time. Public services are in decline. The editor of the *Ecologist Quarterly,* Edward Goldsmith, writes about the failure of ordinary maintenance. The schools of England are "disintegrating into slums," according to the Head Teachers who run them, and money for repairs is not available. British railroads, sewage systems, and gas mains are years behind in needed maintenance. Roads and highways are crumbling.

The United States, too, has bad roads. "In New York City more than a million pot-holes are filled each year; nevertheless, 35,000 law suits were filed against the city during the last seven years and $61 million were paid out in damages for financial losses attributable to pot-holes and crumbling pavements." The sewers around the country are bad, too, and the cities can't afford to fix them properly. Anticipated costs are appalling.

This gloomy survey continues:

> U.S. bridges are also deteriorating fast. Pittsburgh's 129 bridges have been described by public works director John Ruff as "engineering antiques." Eleven of them had to be closed last year because of decay and structural problems and more will be shut down this year. The situation is equally bad in New York and in Washington it appears even worse. Last year, nearly half the city's capital expenditure went on bridge repairs. This was nothing like enough. A complete overhaul is required and this would cost half a billion dollars. In the U.S. as a whole, 100,000 bridges are regarded as dangerous and the cost of replacing them is estimated at $23 billion.

In general, "state and local governments are already devoting 50 per cent less of their spending on capital needs than they did in 1965," and a Congressional Committee said recently that paying for maintenance, improvements, and new public works may be "the single greatest problem facing our nation's cities."

Why, asks Mr. Goldsmith, if the visible support structure of our industrial society is disintegrating, "do we go on systematically expanding it?" If we can't pay for maintaining what we've got, why keep on trying to make it bigger and better? He comments:

> Clearly these trends cannot continue for very long. A point must eventually be reached when the rate at which the physical infra-structure is disintegrating is equal to that at which it is being extended. When this occurs, the lack of money for maintenance becomes *an elective, indeed an insuperable barrier to further economic growth.* In fact it may well be that this point has already been reached, who knows? No government has to my knowledge even considered the matter. Nor is any "popular" government likely to look closely at such wholly unpleasant realities.

Yet it does look as though the ungainly, unmanageable, monster welfare states are doomed to increasing failure and slow-downs, and in some areas even vital functions may grind to a stop. People allowed to go about their affairs in ignorance of the meaning of these trends can not be expected to do much of anything about them until the breakdowns occur, and politicians may find it easier to face such desperate situations than to provide intelligent warnings in time. They prefer to win elections.

Mr. Goldsmith's point, however, is essentially biological. He compares socio-economic systems with eco-systems, showing that there is this great difference between them:

> . . . a climax eco-system no longer has to grow, for it has achieved the ideal state—that at which it is the most stable, i.e., at which discontinuities, such as plant epidemics, population oscillations, drought, floods, and local climatic variations have been reduced to a minimum. In the latter case [the

> industrial society] however *the opposite is true.* As an industrial society grows, rather than become more stable, it becomes, on the contrary, *ever less so.* The reason is that the destructive impact of economic activities on the social and ecological environment must thereby increase. The problems this gives rise to must become increasingly serious, and to these problems our industrial society can provide only technological solutions, which, needless to say, don't work.
>
> In order to apply them, however, the economy must continue to expand, which gives rise to more problems requiring more technological solutions, etc. In this way our industrial society becomes addicted to growth and hence to the consumption of *ever larger quantities of energy and resources*—which, as we all know, are becoming ever more expensive and less available to it.

The argument seems wholly sound—irrefutable, in fact; its only flaw is that the conclusion to which it leads is so unwanted that not logic but increasing pain will probably be the only thing that persuades us of it.

Such, then, are the facts or circumstances of our lives. How are our ideas changing? The concluding article in this issue of *Ecologist Quarterly* is "Eco-Philosophy versus the Scientific World View." The writer, Henry Skolimowski, describes the great transfer of the sense of reality now going on. Instead of thinking of the world as made up of atoms under the rule of physical law, we are beginning to recognize that ours is a living universe in which the flow of being, spiritual as well as vital, is the reality. Wisdom is being restored to the top of the hierarchy of ends, and this realignment of our thinking brings to the fore basic ethical considerations—ideas long regarded as options we have thought up to make ourselves feel good.

> Wisdom is the possession of *right* knowledge. Right knowledge must be based on a proper understanding of the structural hierarchies, within which life cycles and human cycles are nested and nurtured. E. F. Schumacher writes: "Wisdom demands a new orientation of science and technology towards the organic, the gentle, the non-violent, the elegant and beautiful." Ultimately wisdom must be related to our understanding of the awesome and fragile fabric of life. For this reason alone it must entail compassion, for compassion, properly understood, is one of the attributes of our knowledge of the world. It is a crippled school in which compassion and judgment are not developed. It is a crippled school in which judgment and compassion are neglected; for they are essential components for acquiring some rudiments of wisdom, without which life is a vessel without a keel.

On the one hand we have the symptoms of our ills, on the other, diagnosis and remedy. Closing the gap between the two will be a Herculean labor. What will get us going? Admitting the truth in a few old platitudes may be the only way. They shed a kindly light.