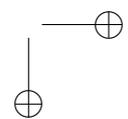
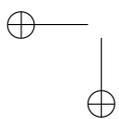
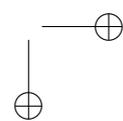
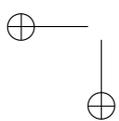
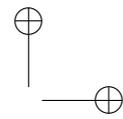
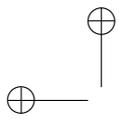
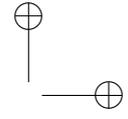
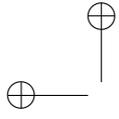


Serious Questions
An ABC of Skeptical Reflections



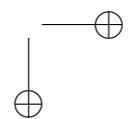
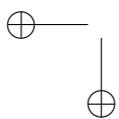


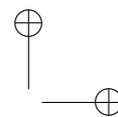
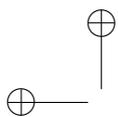


Serious Questions
An ABC of Skeptical Reflections

Erwin Chargaff

IWP



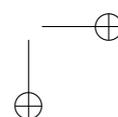
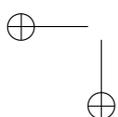


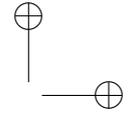
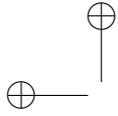
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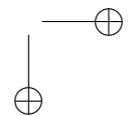
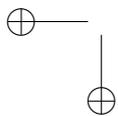
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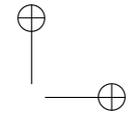
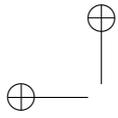




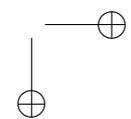
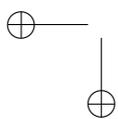
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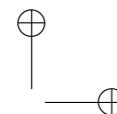
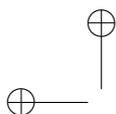
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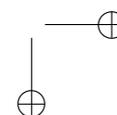
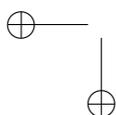


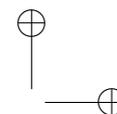
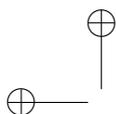
PREFACE

There are people who occasionally engage in thinking when they have nothing better to do. It is a harmless activity, much practiced in former times, but now unfortunately fallen into desuetude. There is so much else to do. Montaigne, the greatest master of latitudinal thinking, roamed widely, if not always profoundly: there was virtually nothing that could not serve him as a hook on which to hang his thoughts, his reminiscences and remarks. His *Essays* have been greatly admired for nearly four hundred years; whether they still are read widely I do not know. He wrote at a time when the languages of antiquity enjoyed a vigorous afterlife which now has surely come to a regrettable end; the many quotations from ancient authors with which his writings are adorned so richly, as with so many strings of pearls, can now hardly find a receptive ear.

Although I had intended originally to subtitle the attempts offered here “the poor man’s Montaigne,” they are perhaps more nearly related to another illustrious ancestor, Voltaire’s *Philosophical Dictionary* which resembles the present book in being neither philosophical nor a dictionary, though in both cases the pieces are arranged in alphabetical order.

As an old practitioner of casual thinking I believe I can say that such thinking may take several forms. One I would call aphoristic thinking: flashes of thought, often associational, sometimes witty; they vanish as rapidly as

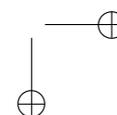
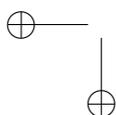


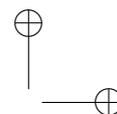
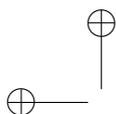


they appear. Another form could be designated as more comprehensive or latitudinal: a term comes to mind, or perhaps an adage, which first broadens into a net of relationships and then is tied into a knot, as it were. Examples of this kind are presented here. That they are collected in abecedarian form has only one reason: the alphabet is the most noncommittal of frameworks, enforcing no didactic sequence on the individual pieces.

Nevertheless, I hope it will be noticed that, regardless of the order in which they are read, the brief essays are born of one and the same point of view, a wistful and reminiscent skepticism. If there is one thing that these texts try to convey it is a distaste for the unacknowledged principle governing our lives; the principle to which I have referred previously, with a respectful bow to Immanuel Kant, as the categorical superlative: everything is the best, the greatest, the newest; nothing can be so bad as to deserve only to be called better, greater, newer. Everybody who has lived long enough knows that at the end the quiet word prevails, the word that promises less than it gives.

The essay “Knowledge Industry” was adapted from an article which, titled “Knowledge without Wisdom,” appeared in the May 1980 issue of *Harper’s*. The essays “Frozen Delight” and “Swindle – Scientific and Otherwise” were published in *BioEssays*, Vol. 2, Nos. 2 and 3 (©1985, Cambridge University Press). The latter also formed the subject of a seminar at Harvard University. All three selections are included by kind permission of the original publishers.



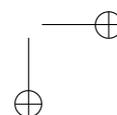
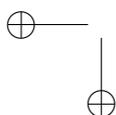


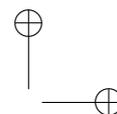
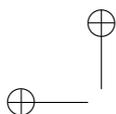
A

AMATEURS

If the world can still be saved, it will be saved by the amateurs. The experts are more than most other people responsible for the mess in which we find ourselves. They know too much about too little, but each knows something special. They can barely understand each other; they do not talk with each other; they sit and serve. To the lay world, they are of very limited use. If you want to tap them, you must know exactly where: the barrels are studded all over with false faucets, releasing nothing but hot air. Only one spigot communicates with the fount of expert knowledge, ready to drench you with more than you wish to know.

Amateur and its milk brother *dilettante* are peculiar words. One comes from the French and means “one who loves something,” the other from the Italian and means “one who delights in something.” They are old words and had long an entirely favorable sense, but toward the end of the eighteenth century, when they entered English, German, and other languages, they acquired a pejorative flavor, partly condescending, partly sneering. It was the ascension of the new concepts of the professional, the expert, the specialist, that threw a shadow of incompetence on the meanings of the old innocuous words. Whether words create concepts or are created by them may be debated. At any rate, our



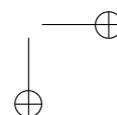
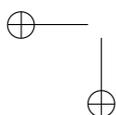


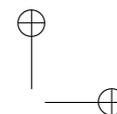
lazy and busy world is a world of experts, and only the complete collapse of our civilization will teach the few survivors that there were other things to be known of which no specialist could have informed them.

Originally one could have said that the antonym of *amateur* is *professional* and that of *dilettante*, a virtuoso; but *dilettante* has now, at least for me, a more derogatory connotation than *amateur*. If I say, for instance, that our government is composed of publicity experts who are dilettantes in governing, this is not meant as a compliment. On the other hand, I could easily say, “The quartet consisted of amateurs who played beautifully”; but I should hesitate to substitute “dilettantes” in that sentence.

An amateur often plays beautifully in politics as well. General de Gaulle may have been an expert in tank warfare, but in what made him famous he was certainly an amateur. Similarly with Winston Churchill or Franklin Roosevelt, who were, if anything, professional nonexperts; and Chaim Weizmann’s eminence was only most indirectly connected with his being a specialist in the technology of acetone. Incidentally, statesmen with a terrorist past are, by that very fact, assured amateur status; for what is a terrorist but an amateur of death?

It is, however, not that kind of amateur whom I proposed as the potential savior of the world. It is you and you. (I cannot say, as I should have liked, “You and I,” for one look at the calendar convinces me that I am out of the running.) What is hiding behind my little foreground meditation is an appeal to everybody to get rid, once for all, of the ridiculous awe of specialism that is being drummed into us all. The problems of

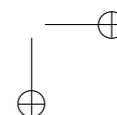
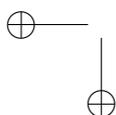


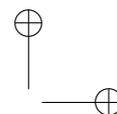


life and death, the questions of sincerity and mendacity, cannot be solved nor answered by professionals. Each one before himself, herself, before the mirror of their souls. We must remember that better times believed in the immortal soul of man; and if I am told that the exact sciences have been unable to demonstrate the existence of a soul, presenting us instead with a shabby psyche, crumpled by life, smoothed by expert psychologists, then I can only say: so much worse for the exact sciences. They should stick to weighing the weighable and watch out, for instance, that the corporations do not put their heavy paws on the balance on which the soil samples are weighed, for otherwise the dioxin content of farm soil will come out much too low, as it often does.

If we looked at the experts as merely the repairmen of our civilization, not much harm would result. An electrician, an automobile mechanic know more of their trades than I do. That is only natural. I should be foolish to compete with them, just as I have never had the desire to remove an appendix. But we have made of our entire life a huge Three Mile Island where there are hundreds of specialists, but never the ones that the moment requires. And so we stagger from one near-catastrophe to the next.

We are being told that the business of living has become so complicated that it can be accomplished only with the help of multiple and most refined expertise. That living has become so difficult is peculiar, for even the experts manage to die in the simplest of ways. Death seems, in fact, to be the only human function that has not been overtaken by progress. In this context, it almost seems a contradiction that the only profession, if it is one, in which dilettantism can be said to flower, is that

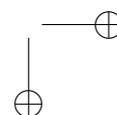
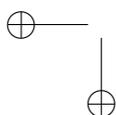


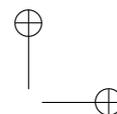


of politician or statesman. For instance, the president of the United States, to be elected, must not appear to know too much about anything; but to create that image of photogenic innocence costs more money than is good for democracy. The eellike ability to navigate between deification and impeachment, to act as the broker between innumerable lobbies of special interests that have all paid into his war chest, is so rare a gift that the few successful presidents may be granted the 10 percent commission of historic glory allotted them in the textbooks, although they rarely merit it.

Once elected president, the amateur will immediately hide his nakedness behind a grim phalanx of experts. From now on he is supposed to be omniscient; and although the poor fellow would much rather watch Westerns all day, he must answer questions on countries about to be democratized whose names he can't even spell. And if, as happens occasionally, the national security adviser has also mislaid his gazetteer, there may be trouble.

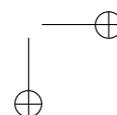
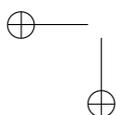
The amateurs whose praise I sing are, however, of a different kind. As I already said, they are you and you. As a matter of fact, they are everybody, for even the bleakest specialist is a layman in all other fields of knowledge or action and may be an amateur in one or a few. I am not necessarily thinking of one who haltingly plays, say, the alto recorder. We live in an ordered, stratified, blinkered world. For me, an amateur is somebody whom no blinkers fit. In our time, with its overpowering opinion industry, the inability to wear blinkers is an heroic act, the private resistance to public opinion becomes a prerequisite of human existence.

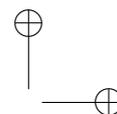




The prototype of the amateur, perhaps the greatest amateur the world has known, is Michel de Montaigne. During a sun-salty, wave-sandy, glorious summer, once in Maine, I read *Les Essais* in the excellent and convenient Villey-Saulnier edition, all one hundred and seven chapters. This huge collection of “essays” – Montaigne introduced that term – has often been attacked for its lack of professionalism and even of seriousness. Indeed, it is neither philosophy, nor fiction, neither an autobiography nor a mere collection of anecdotes, not a guide to better living or wiser dying, but it is a little bit of all that and more. It resembles an ocean from which all manner of things can be drawn forth: a gleaming pearl, a dead fish. It is a book that can teach those most who do not need learn; but dolts will always complain that it lacks organization and cannot be fitted into any category of literature. Whatever went into that book had to pass through the prism of one character, one temperament; it is the self of Montaigne that remains the only element of order in that vast collection of memories, experiences, quotations. Many readers find, in fact, the copious quotations, mostly from the Latin, an impediment. Owing to a curious quirk of his education, Montaigne’s first language was Latin, not French. He had been, during the first six years of his life, in the hands of a German pedagogue, ignorant of French, who only talked Latin at, to, and with the growing child, something that presumably could happen only during the Renaissance.

Is an amateur, then, a man who, letting the world flow through him, remains uncommitted to anything in particular? Certainly not, or not only that. But, whereas an expert’s convictions come from outside, from what he

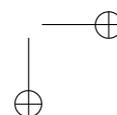
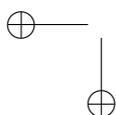


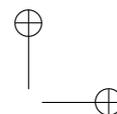


has learned, those of an amateur are strongest in what he can take out of himself, his character, his temperament. He may be a skeptic or an agnostic where politics or patriotism is concerned or even the course of humanity, but he will be unshakable in the course that he himself believes he must take. He will consult with himself rather than with Public Opinion or similar corruptible oracles of a corporate Delphi. An amateur can only be himself; a professional association of amateurs is unthinkable.

It has been said of Montaigne that he passed through the various stages of Greco-Roman philosophy: first a stoic, then a skeptic, and finally an epicurean. Whether he has also been accused of being a cynic, I am not sure. Probably he has been, for the experts do not like him, but whatever they can say about him, he has said it better. To be unclassifiable is today one of the worst offenses; and if you belong to those unhappy few, you will be introduced as “a Renaissance man” or “Leonardo-da-Vinci type,” and it will not be meant as a compliment. And still, I say, they are the hope of the world.

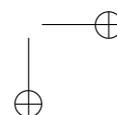
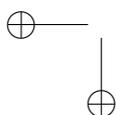
Inaudibility is the principal attribute of the prophet. There is little chance that the amateurs, unorganizable almost by definition, could make themselves heard against the enormous background noises of our time. Even if they could overcome the din (what a short and soft word for something so uproarious), they would not be understood and followed. It is not a frontal attack on the innumerable acronyms (the flesh and blood of our present) that I can hope for, but rather a mouth-to-ear or, better, a heart-to-heart action of single persons on single persons. If enough people feel that our civilization has painted itself into a most uncomfortable corner, something will

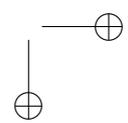
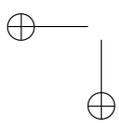
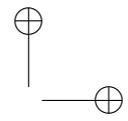
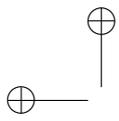


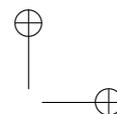


happen. The form that change will take I cannot foresee. Will it be Spartan, ascetic, anarchic? I do not know.

Actually, I must concede that this is not the way in which things usually happen in history. Institutions wither away slowly and imperceptibly, forgotten before they have expired. Conspiracies of well-meaning people frequently end by the conspirators meaning less and less well. The innermost core of nations remains, however, unchanged. It is not impossible that, were Ivan the Terrible to return to Moscow, he would feel more at home than Andrew Jackson would in Washington. Why then, you might ask, did I say that the world will be saved by the amateurs? For two reasons: first, because in every gloomy pessimist there is a tiny beaming optimist who wants out; and, second, because occasionally, though very rarely, something of importance does happen for the first time. The revolt against expertism has long been brewing, with more and more people beginning to realize how much worse than ignorance it is to know the wrong things at the wrong time.







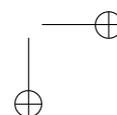
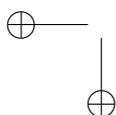
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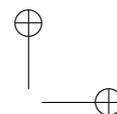
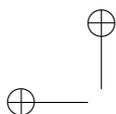
BEAUTY

Let us suppose that you have lately read or reread a poem by, say, William Blake, perhaps “The Tyger” or “The Chimney Sweeper,” and then said to yourself, “What a beautiful poem that is!” Or you may have seen one of Goya’s portraits in a museum and come to the conclusion that you were viewing a most beautiful painting. If I asked you what you meant, you would be angry, and rightly so, for if we were called upon to define our terms as we live along, we should have little time left for the serious business of living. All you really wanted to express, I assume, was that reading or viewing the one or the other gave you a pleasant feeling.

When, in the old times, I received a scientific paper for review and wrote in my answer that this was a beautiful piece of work, my intentions may have been purer than when Don Giovanni said “That’s a beautiful girl”; but the very agreeable impression experienced by us both was at least one of the common characteristics of our statements. If asked for the reason of our judgments I am, however, sure that Don Giovanni’s and my answers would have been quite different. (It does happen that one sleeps with a scientific paper, but these papers would hardly be called beautiful.)

Beautiful is no doubt one of those fortissimo words in the language that have been worn out by constant



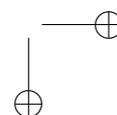
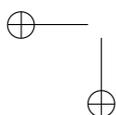


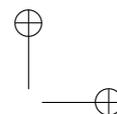
overuse, by what I have called the categorical superlative of American advertising. Some people believe it possible to overcome that defect by using one of the half-synonyms, such as *attractive*, *pretty*, *lovely*, but to no avail: all those words have become equally shabby. Still, the concept of beauty is age-old. Who has not heard of Helen of Troy? But Homer knew what we seem to have forgotten, namely, that poetry, in contrast to painting, sculpture, or music, can express beauty only indirectly, through the effect it exerts on the viewer. (I am thinking, of course, of descriptive poetry, attempting to represent a beautiful object, not of the beauty reposing in the lyric itself.) When Helen goes to meet “the Seniors of the Trojan Race,” the enchantment felt by the old men is thus rendered in Alexander Pope’s noble version of Iliad III:

These, when the Spartan Queen approach’d the
Tow’r,
In secret own’d resistless Beauty’s Pow’r:
They cry’d, No wonder such Celestial Charms
For nine long years have set the World in Arms;
What winning Graces! what majestick Mien!
She moves a Goddess, and she looks a Queen!

The exclamation of the seniors is perhaps a trifle more Homeric in Chapman’s older translation:

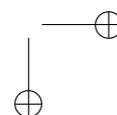
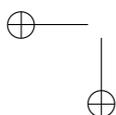
What man can blame
The Greekes and Troyans to endure, for so admir’d
a Dame,
So many miseries, and so long? In her sweet counte-
nance shine
Lookes like the Goddesses.

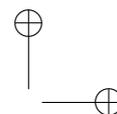
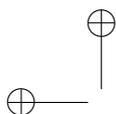




The depiction of physical beauty was left by the ancients to sculpture. (We know little of their painting.) Innumerable Venuses, Apollos, Herculesees, epebes, hermaphrodites, and athletes survive, unfortunately mostly as copies dating from decadent times. To what extent those statues represented a common view of what a beautiful body looked like, I do not know; but they were so considered by subsequent times, until, I should say, about the middle of the last century. Albrecht Dürer, for instance, took endless measurements to perfect a geometrization of beauty, but at the end he had to confess that he still did not know what beauty was. We have only to compare three of the most celebrated depictions of Venus, those of Velazquez (London), Titian (Florence), and Giorgione (Dresden), to realize that a scientific investigation of corporal beauty will not get us very far. Like many another ideal – truth, justice, goodness – beauty is not measurable. We seem to feel it instinctively; and often, when we try to give an account of it or to define it, that feeling disappears. Art appreciation courses, therefore, are a waste of effort, nor is it possible to teach people how to read a poem. Judgments on beauty are an individual affair, and it is unlikely that any two persons will adhere to exactly the same canon.

Still, from very early times philosophers have thought that there must be general rules on what makes for excellence in the productions of art and literature. Although the name of the discipline of aesthetics goes back only to the eighteenth century (A. G. Baumgarten, 1741), Plato had already considered measure and harmony to be the essence of beauty. Since Plato and Aristotle, aesthetics, whether so named or not, has been a subject about

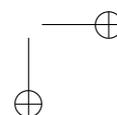
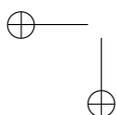


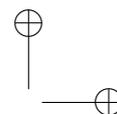


which many of the great philosophers have meditated; to no great profit to humanity, I should say. Most of the treatises make rather dull reading, for one gains the impression that, with all the sagacity spent on distinction and definition, the most important characteristic of a valid work of art or writing gets swept away, namely, the intensity of the drive to express oneself. It took a long time to the realization that the greatness of a work of art or of writing has little to do with what is commonly regarded as beautiful. There is, in fact, more so-called beauty in kitsch than in Kafka or Kokoschka.

It is not surprising that few outstanding artists or writers have thought deeply about what they were doing; probably for the same reason that a centipede might be unwilling to number its legs, for fear of being no longer able to walk. There is a fitness in nature which vanishes when it is placed under the sharp and merciless light of disquisition: we often end up with the carbonized skeleton of truth. There have, of course, been exceptions: I have mentioned Dürer; there were also, for instance, Hogarth and Seurat, Goethe, Schiller, Coleridge, T. S. Eliot, Bertolt Brecht. The most remarkable exception was, perhaps, the greatest writer of the nineteenth century, Lev Tolstoi. His contribution cannot be said to have added to his fame – quite the contrary – and, yet, it contains much that is noteworthy.

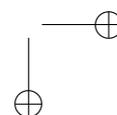
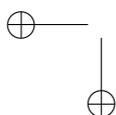
Tolstoi's small book (about 200 pages) *Čto takoe iskusstvo?* (What Is Art?) was first published in 1898 in a version mangled badly by the czarist censorship. The unmarred text appeared, remarkably enough, in the same year in London, in Aylmer Maude's translation, with a preface by the writer. With his usual relentless

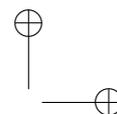
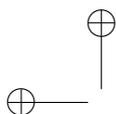




literalness, writing and crossing out one cyclopean sentence after another, Tolstoi had labored fifteen years over a text that left him only partly satisfied to the very end. His conclusions went so much against the grain of his time, and also of ours, that they promptly sank out of sight, being excused at best as the aberrations of a great mind grown senile or childish. The critical opinion of a medieval monk about Joyce's *Ulysses* would have been treated similarly. The principal reason for the disrepute in which this work of Tolstoi is held is that it is written in unusually plain words, a style detested by the specialist floating merrily on the viscous surface of a professional jargon.

"Art" in Tolstoi's use of the term includes painting, sculpture, music, poetry, and other writing. He does not speak of architecture. The book begins with a very funny description of an opera rehearsal that Tolstoi attended, emphasizing the absurdity of having many hundreds of people contributing to an entertainment accessible to very few. The book ends on an entirely different note, assigning to art the task of bringing about the brotherly unity of the people, a conclusion reached during a long, painstaking, and painful trip through all the literature on the philosophy of art that he could assemble. Hacking his way through the various definitions of beauty, he rejects the production of beautiful things as being the primary function of art, nor does he admit that it consists in being entertaining or pleasurable. According to Tolstoi, the real problem in the understanding of art and of beauty arose only at the end of the Middle Ages, with the weakening and the disappearance of widespread religious feeling. It was only then, he thinks, that what he calls

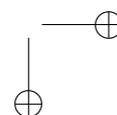
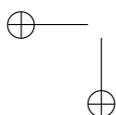


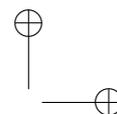


“the higher classes,” having lost their faith, turned to art as the provider of the perfection of enjoyable beauty. In that period he places the origin of the great chasm: the formation of an art accessible only to the refined taste of the educated, excluding the *naród*, the common people.

As Tolstoi wrote his book in the 1890s, the specimens cited by him are mostly taken from that period: esoteric poetry by Mallarmé, Verlaine, and others, paintings by the great French impressionists, the works of Richard Wagner, one of his *bêtes noires*. (An appendix to the book gives a very amusing summary of the *Ring der Nibelungen*.) It would have been nice to hear Tolstoi on *Finnegans Wake* or on the works of Marcel Duchamp, not to speak of the giant soup cans, cheeseburgers, and the like through which modern art has expressed its existential hunger for reality.

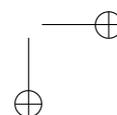
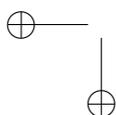
The principal criterion of true art is, according to Tolstoi, the ability of the work to convey the feelings with which it has been created to those seeing, hearing, or reading it. He uses a drastic expression: the work of art must *infect* the public. “There is one doubtless sign distinguishing true and counterfeit art: the infectiveness of the first.” This was written long before the Beatles; but I, for one, should have thought that nothing is so overpowering as bad art and that unspoiled sincere people would at any time prefer a weeping cemetery angel to a statue by Michelangelo or Bernini. The effectiveness of kitsch may be taken as a sign of the depravity of mankind; but I am afraid, any open-air jazz concert welds more people into a community of enthusiastic assent than the most beautiful legends of the Bible have ever been able to do.

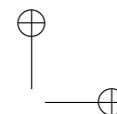
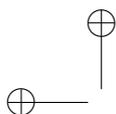




Just as the great doctors of our times, Marx and Freud, are so much better at diagnosis than at therapy, Tolstoi finds it easier to define good art than to provide examples. As representatives of “the highest religious art, having its source in the love of God and of one’s next” he mentions Schiller’s *Die Räuber*, *Les Misérables* by Victor Hugo, some of Dickens’s novels and stories, such as *A Tale of Two Cities* and *The Chimes*, *Uncle Tom’s Cabin*, Dostoevski’s *Notes from the House of the Dead*, and *Adam Bede* by George Eliot. With the exception of a few stories, he rejects his own great works, not even mentioning *War and Peace* and *Anna Karenina*. Higher than anything else he esteems the stories and parables of the Bible and similar folk tales; the legend of Joseph in the Old Testament is singled out as the foremost example of great art.

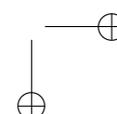
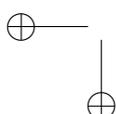
Much as I admire Tolstoi, and even this book of his, I believe he is wrong: he constructs a theory of art that could have been valid only before the Fall of Man. It is a view of artistic creation before the advent of sex, before original sin. He himself, whenever he stumbled afterward into writing masterpieces, had to disregard his own teachings. He is, however, correct, it seems to me, in underlining the importance in a great work of art, of its intensity, its “infectiveness.” That the vast majority of the public in our time is immune to that infection is a regrettable fact. It was probably different in the past, though I do not know to what extent. Did Giotto or Fra Angelico have a greater appeal to the common man in their time than Rouault has now? Possibly; but I do not think a Florentine cobbler of the fourteenth century could get very excited about Dante. After the expulsion

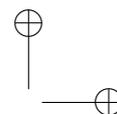




from Paradise, even the Angels acquired a grammar that had to be learned.

It is surprising that Tolstoi makes little mention of what is to a large extent the mother of all created art and created beauty, namely, of nature, which surrounds man. Natural beauty is not a subject that has interested many philosophers, although Hegel in his *Lectures on Aesthetics* does evaluate it, assigning it a lower rank than the beauty expressed in works of art. Again, I cannot agree. It is, in fact, the beauty of nature that makes incipient artists out of all observers. What most of us lack, unfortunately, is the ability to give original expression to what we feel. “Original” is here the key word. That is our predicament: most of us are geniuses at many removes. When Bernini made his Santa Teresa he created a flaming masterpiece; we set out to produce replicas on the assembly line and end up with having a factory of pieces of bondieuserie. How much better to look out of the window and watch the moon rising over the trees, without making a sketch or a poem.



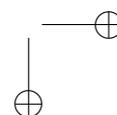
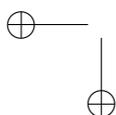


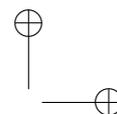
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CHARISMA

Charisma favors the moron, but not every mental defective has it, nor is cretinism a requisite of charismatic endowment. Some very gifted people are also said to possess it. Founders of religions have it *ex officio*, but in the next category, with the U.S. presidents, the situation is less clear. Why did Jimmy Carter lack it, in contrast to the elderly entertainer who succeeded him? After all, they had more or less similar speech writers who had gone to the same journalism schools. *Charisma* and *charm* are not related etymologically, contrary to what one would have expected; but the two words resemble each other in many respects. One person will be said to be charming; the other, try as he or she might, is not. It is as if Providence had equipped itself with two different oil pots from which to anoint the chosen: one receptacle conferred charisma, the other inconspicuousness or even invisibility.

To the uninitiated, charisma might appear synonymous with *chutzpah*, a useful word sanctioned by *Webster's Third New International Dictionary*, which translates it as "supreme self-confidence." But that is not the case, for charisma cannot be acquired by training or imitation; it is poured down from above and it can be taken away again. The great historian Jacob Burckhardt thought very deeply about the riddle of fortune and misfortune

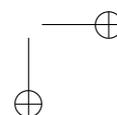
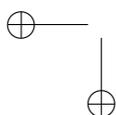


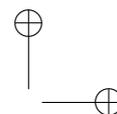


in history, which is often a function of the calendar. Compare Adolf Hitler in 1938 and in 1945. Had he died in the beginning of 1939, would he not have survived as a great historical figure of enormous achievements that his successors were too feeble to maintain? In other words, charisma can shrink like Balzac's *Peau de chagrin*. In Hitler's case, five years were sufficient to make it disappear definitively, so that what remained was an impotent mass murderer squatting in a cheerless dugout.

Charisma is an ancient Greek word which the dictionary translates as "grace" or "favor." Its best known use is in the New Testament where the plural *charismata* occurs several times in 1 Corinthians, Chapter 12, in the sense of supernatural graces. The Vulgate has for it "gratia," the Authorized Version "gifts." In the English language it first appears in the theological sense in 1641, but it was not until 1947 that its now current vulgarized application was booked, in a translation of one of Max Weber's works. It is, hence, probable that the word, in its present debased condition, was taken over from sociology. But in our time, when there is only one step from lumpen mysticism to aggressive salesmanship, the word *charisma* has made a quick career: the Manhattan telephone directory lists seven businesses whose names begin with the magic word. (None begins with *chutzpah*, which indicates that the Greek language is in itself charismatic: the same directory contains ninety-one names starting with Alpha, thirty-one with Omega.)

Quite some time ago, I wrote somewhere that *charisma* seems to refer to some sort of ambrosial body odor. I once knew a wit (may he now make better jokes in Paradise!) who sometimes, entering a room full of people, would

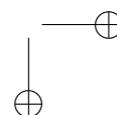
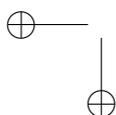


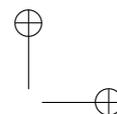


sniff around and say, “I smell a Messiah.” Maybe he did smell something, but the world still yearns for a new savior. More probably, he sensed a hysteric, for hysteria is a radioactive temperament and one potent hysteric can hysterify a whole crowd.

There are indeed many points of contact between hysteria and charisma, and a successful revival meeting does resemble an enthusiastic political crowd soaked in the charisma of the leader. I was never present at any of the fascist or national socialist mass gatherings, but as a young man in Vienna and Berlin I listened to quite a few of Mussolini’s and Hitler’s speeches on the radio. That both these horrors had plenty of charisma, though with an expiration date, can hardly be denied. But whatever that emanation was, it did not work on me. It seems, I am charismaproof. As for Mussolini, I was probably unable to judge how vulgar he sounded to an educated native ear. I was twenty and studied Italian at the Scuola Dante Alighieri in Vienna, maintained by the fascist government for the enticement of guileless Austrian youth. The magnificent Italian language – such round vowels, such cutting consonants: a whip capable of coloratura – that language sounded thrilling to me in the dictator’s treacherous mouth. But even then, had I been able to buy a used car, I would not have bought it from Mussolini. He sounded too much like an opera villain equipped with a melodious score.

With Hitler, things were different. When I first heard him, I said to myself: if the legendary ratcatcher of Hameln had thus addressed his rodent audience, the rats would have giggled and run away. To anyone who had grown up in Austria and spoke its rather pleasant, di-

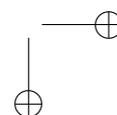
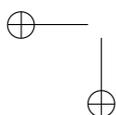


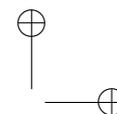


alectally tinged German, Hitler sounded like a provincial, mentally unstable apprentice friseur who had gone to night school. The very embodiment of musty Danubian backwoods, his language, both in speech and writing, abounded in assiduous malapropisms, in grotesque half thoughts, in the false pathetics of penny dreadfuls. At that time, one met many excited imbeciles who had drunk too deeply from Darwin and Wagner.

I was wrong. I had forgotten that cancer, too, is banal. Invasiveness has nothing to do with quality. Quite the contrary: meanness is contagious, not nobility. Reading in the history of great upheavals like the French Revolution, one becomes aware at each step that, when the unchained popular soul boils up, it bubbles nothing but blood. Therefore, I was wrong; the rats did not giggle, nor did they run away. Ratcatchers, in fact, make rats, the crowds grew ever bigger. The nation that had produced Goethe and Hölderlin, Bach and Mozart, Dürer and Grünewald, Kant and Marx, Kepler and Gauss, Martin Luther and Jacob Böhme, and how many others – that nation fell for Adolf Hitler.

There you have charisma, and it is nothing that you or I would wish to possess. People tell me that Adolf Hitler was a genius; they usually add the qualifier “evil.” Still, I deny it, for I have little respect for half-wits, even if, thanks to their charisma, they have wreaked great destruction. One should not overdo one’s hero worship. But I know, I am crying in the wilderness, the heroization of shabby monsters is addictive, people being unable congenitally to distinguish between a hero and heroin. Even now there would certainly be ardent collectors of Hitler’s used toilet paper, if authenticated.

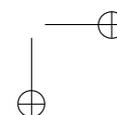
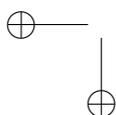


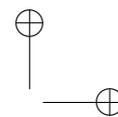
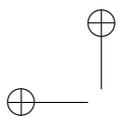


That those collectors would most likely be found in America is another story.

In Lion Feuchtwanger's long novel *Erfolg* (Success), published in 1930, there is an excellent description of the early career of Adolf Hitler, thinly disguised as a certain Rupert Kutzner. Feuchtwanger, who lived in Munich at the time when Hitler and his newly fledged party made their first bloody steps toward the eventual triumph, was surely a very acute observer, but I cannot see that his account mentions any particular charisma exuded by the farcical figure. What he does emphasize is Kutzner's enormous rhetorical stamina: he can give endless speeches, lasting many hours. Could it be that charisma is only in the ear of the beholder? That cannot be the entire explanation. There must have been a gift of nonverbal atmospheric persuasion, so that, while Hitler spooled off his stupid tirades, the hearers while listening dreamed each their own personal dream about what was dearest to them: one dreamed about sausages, another about the conquest of Moscow, that focus of evil, and again another about the extermination of the Jewish race. At the end of the performance the strolling players took off to address the next beer garden, but the audience remained behind, dreaming, dreaming. What happened when they woke up, that forms part of recent history.

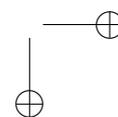
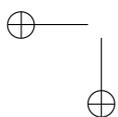
I am, of course, against the misuse of terms, and I should like to see *charisma* returned to the New Testament and similar religious habitat. The opinion industry ought to make up its own terminology instead of pilfering in holier grounds. Even the sociologists should not disguise what they cannot name clearly by appropriating venerable terms of the past, thus obscuring the manifest

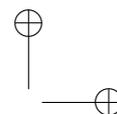




fact that there are differences between Buddha or Jesus Christ and Adolf Hitler.

The few “charismatic” figures who have crossed my path struck me as charlatans. That is another category tangential to the word under discussion, with which it shares the first four letters. It is, in fact, possible that a charismaproof individual is condemned to seeing only charlatantry in what others adore as charisma, a fate not unknown to Ahasverus or Kundry. This shows that there must be limits even to skepticism, although the last 1950 years have seldom given skeptics the lie.



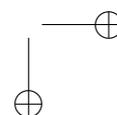
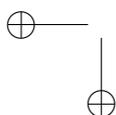


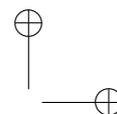
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CLASSICS

In my parents' house, in a provincial town of the ancient Austro-Hungarian monarchy where we spoke German, there stood a huge bookcase in one of the rooms. That room was called variously *Salon* or *Herrenzimmer*. "Salon" means drawing room or parlor, but "Herrenzimmer" is a funny word. Is it the gentlemen's room or that of the master of the house? Austria's Victorianism was late and lasting; and since ladies were not supposed to smoke, maybe the name meant smoking room. In any event, there was that big glass-encased bookcase, and inside, row upon row, there were the CLASSICS. There were, of course, also other treasures: a very large encyclopedia whose antiquated and partly even then outmoded learning fed the voracious appetites of a six-year-old. Another equally large compilation in twenty volumes remained, however, unread: something called *The Austro-Hungarian Monarchy in Word and Picture* commemorated the unlucky day when my father fell victim to a salesman selling subscriptions from door to door. Books last longer than empires. A few years later and there was no monarchy, but, for all I know, those stupid books still grace somebody's shelves somewhere on a dusty, sun-baked street in the Soviet Ukraine.

Foremost, however, were the classics, multivolume editions of Goethe, Schiller, Lessing, Heine, Shakespeare.

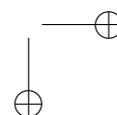
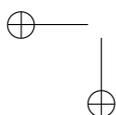


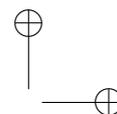


Large books, about 14 by 9 inches, copiously and tastelessly illustrated, heavily gold-embossed, the covers strewn with flowers and arabesques, a medallion with the profile of the writer in the middle, occasionally a corpulent dryad growing out of a misdrawn tree. Children are not harmed by illustrations, they love them; their imagination is strong and their sense of the miraculous unassailable. For them, pictures assuage the thirst for an as yet undiscovered reality. But in general, I am against illustrated works of literature. The artist is either too good for the words that provide the impulse or he demeans them. An illustrated Homer or Shakespeare, and be it by Flaxman or Delacroix, is a stillborn hybrid. For me, only the Dickens novels form an exception and, of course, William Blake, that paragon of incomparability, though even he was better at his own poetry than with Dante.

In the nineteenth century, all nations with a stable and self-assured society abounded with collections devoted to editions of the so-called classics. That went along with the desire on the part of the then maturing bourgeoisie for safe, permanent, and hereditary possessions. Classics were cash in the bank; even better, they were inflation-proof Consols, guaranteeing a good return from a prudent investment, quite different from the spurious gold-mine shares of the contemporary literary riffraff. Only rarely would an enterprising spiritual venture capitalist invest in Verlaine, Mallarmé, or Stefan George.

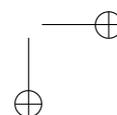
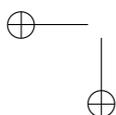
And so, even in my own time, there were the *Oxford Standard Authors*, the *Classiques Garnier* (not to speak of Flammarion and Larousse), and the several “Klassikerbibliotheken” of Cotta, Meyer, Hesse, Bong, and Insel.

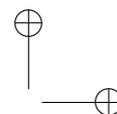




Even now, after the watershed or rather the bloodshed of two gigantic world wars and the unnamable bestialities of several once civilized nations, there still exist, on the European continent, excellent collections of “classics”: in both Germanies, in Russia, in Italy, and in France the marvelous Pléiade. The last named is the most comprehensive project, gathering, under one format Lao-tse and Montaigne, Pascal and Marx, Racine and Tolstoi, at the present time something like 110 names. If I take the availability of great literature as the criterion, Britain, that halfway house between Europe and America, has fallen behind badly. And finally, as concerns the United States, that young country still has to make do with a few pseudoclassics; but give it a thousand years, as most other nations have had, and there may be quite a few computer-generated masterpieces. The rest of world literature has, however, been banished here to the realm of disintegrating pulp, in which a faint typeface on crumbling newsprint offers its disposable texts to the tortured eyes of the reader.

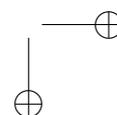
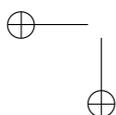
What, then, is a classic? There is a corona of affectation around the word, a lip-pursing, lisp-ing eager-beaverness, a Harvard-Shelfish, Hundred-Great-Bookish, and, therefore, short-lived eagerness for self-improvement. But the tinsel aureole is deceptive: the word is ancient and it has a meaning. Its venerable etymology can be looked up. Already in the second century A.D., Aulus Gellius, that *Reader's Digest* of antiquity, contrasts a *scriptor classicus*, a classical writer, with a proletarian one. Originally the word simply meant first class, that is, belonging to the tax-paying section of society. Since rich people have always been known to have a refined taste,

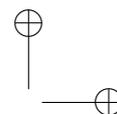




they read only first class writers. And those were writers, so far as they survived, that one later read “in class”: a second string to the same etymological knot. Until the eighteenth century, the time of the Enlightenment, everybody knew what it meant “to study the classics.” It meant to read the Roman, and later also the Greek, poets, historians, philosophers, and orators. It was only during the late Renaissance that Greek literature was elevated to classical status. For instance, that hardheaded, clear-sighted Florentine, Machiavelli, a contemporary of the great Erasmus, knew no Greek.

In the eighteenth century, however, the designation *classics* was extended to post-Roman writers. Voltaire may have been the first to speak, in a letter written in 1761, of “our classical authors,” referring to the great French writers of the preceding century. Since that time, every civilized nation has established its own canon, often a rather threadbare one, and the word *classic* has begun to suffer from a deplorable inflation. Especially, in the scientific literature one now often encounters sentences of the following type: “In their classic paper [published in 1982] Smith et al. [fourteen names] have shown that. . .” Even the garment industry, a near relative of our present-day scientific community, uses the term *classic* to describe certain styles, perhaps with the not entirely erroneous notion that *classic* has now again become synonymous with *classy*. That is where it actually started. In other words, the careless disregard of our times for established meanings, for similarities and distinctions, that has already depraved the word *genius* is doing the same with the word *classical*.

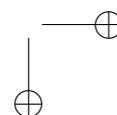
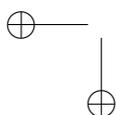




There is, incidentally, another little trap waiting for the user of words which we may disarm carefully without getting caught in it. Not every classic need be classical, for that adjective serves in literary history as a contrast to *romantic*. The following sentence, though not advisable, is conceivable: “Pushkin is the first romantic classic of Russian literature.”

Many literary works that are now considered classics seem to occupy that rank because they are seen to represent the quintessence of a people, a language, a period. Thus, the *Divina Commedia* may be regarded as the poetic extract of the scholastic Middle Ages and at the same time the lasting codification of the Italian language, just as Faust represents the German spirit and, say, *War and Peace* that of the Russian people. In that way, a canon of classical works has been established and sanctioned in the course of many centuries. The same may be said of fine art and, less assuredly, of music, since here time and place appear to have a much greater influence on perceptiveness. Most people, I believe, will be much more receptive to the painting of China or Japan than to the music.

In asserting that canons are desirable, even necessary, I swim against the current of our times. History and tradition are the memory of humanity; without them, I fear, man would soon begin to grow a tail. Now, I have nothing against animals; some of my best friends were animals (or became so soon after we met). But there are distinctions – reason, language, poetry, music, art, the stock market – and all of human life is a desperate resistance to the merciless equalizer Entropy, mental and physical entropy. That the struggle is always lost makes

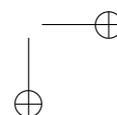
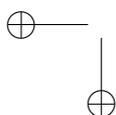


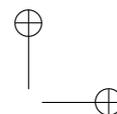


it that much more heroic. Religion has, throughout thousands of years, been the firmest support of mankind, but, I am afraid, it has now moved to other planets, having become sanitized on ours. If God cannot help you, because you have lost faith and are now telling your friends that He is dead, then perhaps Johann Sebastian Bach or Mozart can; they are certainly more solid props than, say, Galilei or Darwin.

The classics, in the sense customary during the preceding centuries, are an important part of the canon that I have mentioned. How had the list been drawn up? Not by the schools, thank God, not by the professors. The schools, in fact, high schools, colleges, universities, have done more than anybody to make people sick of the classics. No classic has ever been discovered by a teacher who merely chose his name from a list supplied mysteriously. The list has grown, as in ancient times myths and legends grew, under the weight of survival. Has Time done the selecting? "People's voice is God's voice," says an old proverb; but there is no God, I am told, and as for the people, they could not choose a deodorant without the persuasion of an advertising jingle.

Time has much time, and so the list of classics has been growing very slowly. Even if the advertising agencies have lavished the attribute on a lot of junk, the consensus of the ages pays no attention to that. The chances that a best-seller of our day will become a classic are very slight, although Tolstoi, with his queerly consistent sense of esthetics, declared *Uncle Tom's Cabin* to be one of the few real masterpieces, denying that claim to, say, *King Lear* or *Faust*. The present can never discern which of its products may turn into a classic. There have been,

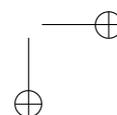
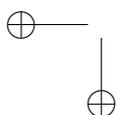


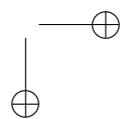
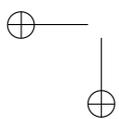
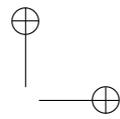
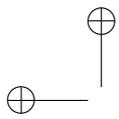


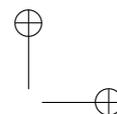
however, exceptions in the past. The power of Dante's or Goethe's work, the grandeur of Corneille, the sweetness of Racine were recognized early. That recognition may always have been due to a few, but their judgment was vindicated by the future. How this confirmation occurred, I cannot say.

It is not impossible that our time has at last developed mechanisms to prevent the appearance of a genius. It is inconceivable that a Hölderlin or a Rimbaud could cut his way through the thicket of the present-day literary trade. All nations, not only Russia, need a *samizdat*. Whether that would do much good in the United States is doubtful for, in contrast to Russia or Germany, the U.S.A. is not a reading country. It is much more a country listening to music. The thousands of joggers in Central Park whom I can see from my window, seem all to be connected to cassettes, thereby serving two entirely incompatible masters; but even they would find it difficult reading Montaigne while building up their physiques.

If I were to venture a guess as to who in our time has a chance of becoming a literary classic, I would, leaving aside all the ridiculous choices of the Nobel Prize Committee, come up with one name, that of a shy consumptive employee in an insurance office in Prague: Franz Kafka.







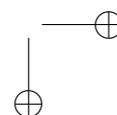
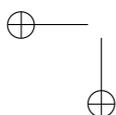
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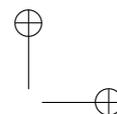
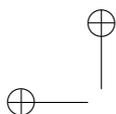
DEATH

James Boswell, that irritating genius of an investigative reporter ahead of time, left an enormous diary. In the volume covering the years 1776 to 1778 there is a moving account of the last weeks of David Hume, whom Boswell went to see in July 1776. Hume, one of the greatest representatives of my favorite century, had just returned to Edinburgh from London and Bath. Boswell found him “just a-dying. . . . He was lean, ghastly, and quite of an earthy appearance. . . . quite different from the plump figure which he used to present. . . . He seemed to be placid and even cheerful. He said he was just approaching to his end.”

The untiringly tiresome interviewer introduces the motive of immortality, but the primitive bait is, of course, rejected. “He then said flatly that the morality of every religion was bad, and, I really thought, was not jocular when he said that when he heard a man was religious, he concluded he was a rascal, though he had known some instances of very good men being religious.” One more quotation from Boswell, and then we have done.

I had a strong curiosity to be satisfied if he persisted in disbelieving a future state even when he had death before his eyes. . . . I asked him if it was not possible that there might be a future state. He answered it was possible that a piece of coal put upon the fire would not burn; and he added that it was a most unreasonable fancy that we should exist for ever. That immortality,



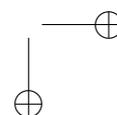
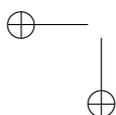


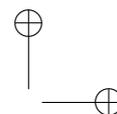
if it were at all, must be general; that a great proportion of the human race has hardly any intellectual qualities; that a great proportion dies in infancy before being possessed of reason; yet all these must be immortal; that a porter who gets drunk by ten o'clock with gin must be immortal; that the trash of every age must be preserved, and that new universes must be created to contain such infinite numbers. . . .

I asked him if the thought of annihilation never gave him any uneasiness. He said not the least; no more than the thought that he had not been, as Lucretius observes.

Here we must leave the great skeptic and leave him to die, as he did a few weeks later, on August 25, 1776. Had he ever been skeptical about his skepsis, as he ought to have been? With respect to Hume's last remark quoted here, the editors of the Yale edition of the Boswell papers, from which the passages are taken, cite not only two lines from Lucretius, but also a more explicit statement from Seneca's *Epistles*: "Death is non-existence. What that may be I already know. What shall be after me is what was before me. If the state after death is in any way painful, then the state before we emerged into life must necessarily have been so too. But we felt no distress then."

At this point I must, however, stand up to the combined weight and power of those celebrated Epicureans and Pyrrhonians and ask, "And how about individuation? You, Mr. Hume, were born in 1711, I can see that in the books, and you died in 1776. Is there then, so far as you are concerned, no difference between the years 1709 and 1778? I know you would say, 'No, it is all the same.' But it is not, I insist. When out of the myriads of sperm cells one cell combined with one egg and there was created, once in history, the unrepeatable,

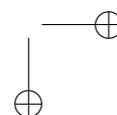
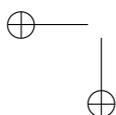


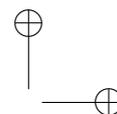
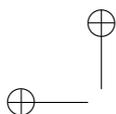


entirely unique I, namely, David Hume (the name is, of course, accidental), is that not an event in time that even time cannot efface? A human being was swept into life, the ‘ineffable individuum’ of the scholastics, and that produced a motion in the fabric of the universe that can never stand still. ‘Don’t make me bigger than I am,’ you say? But I am not thinking only of you, I am also thinking of the gin-sodden porter. His death, too, will make the world poorer, and if he had a wife and children, they will weep after him. Where there are genuine tears, there is truth. There is a great difference between never-have-been and no-more-have been. Stoicism, yes even skepticism, are great virtues, but a heart open to the misery of the world is a greater one.”

Here my peroration stops, and if Hume ended up, after all, in paradise, I shall stand before him, revealed as an entirely unphilosophical fool. For it was he who in his *Treatise on Human Nature* had composed, in Book I, Part IV, Section VI, the celebrated chapter on “Personal Identity.”

The belief in immortality, so vehemently rejected by so clear a mind as that of Hume, is, however, of venerable ancientness. When in common usage *immortality* is employed as a near-synonym of *great fame*, one may lament that the trouble with immortality is that it only begins when one is dead. But when, reading Horace in school, I came upon the famous passage “Non omnis moriar” (I shall not all die), there seemed to touch me a breath of something finer, more exquisite, than just renown among men. I was mistaken: precisely that Horace must have had in mind, for in the same ode he

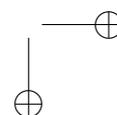
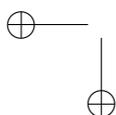


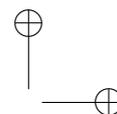


speaks of having erected a monument more perennial than steel.

In any event, when in later readings (leaving aside religious texts, to which I shall come in a moment) I tried to abstract and compress what great men had thought about the matter, I seemed to encounter the conviction that once nature had produced so superbly tuned an instrument as the mind (or dare I say, the soul?), it was unlikely to permit it to be annihilated. But I had to admit that this was not much of an argument. As a scientist I knew that we talk endlessly to nature using the language of science, but that nature does not speak to us. Viewed with mortal eyes, nature is ruthless; there can be no creation without destruction, both being equally divine prerogatives or, if you prefer, prerogatives of nature, whose ideas about cost effectiveness certainly differ from those of an efficiency engineer.

Goethe, one generation younger than Hume, touched on these matters repeatedly in his conversation. He was, perhaps no less than Hume, a child of the Enlightenment; but in contrast to Hume, he witnessed the great upheavals that the end of the eighteenth century brought upon the world, and his profoundly poetic mind was able to listen to deeper and darker voices. His statements, made at different times and directed at different partners, did not all go in the same direction. In 1822, for instance, he spoke with Chancellor von Müller and said: “Everyone must carry the proof of immortality within himself, it cannot be supplied from outside. Although all in nature is change, yet behind everything that changes there rests something eternal.” On another occasion, speaking with Eckermann, he said, however, that he had often been

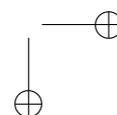
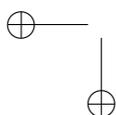


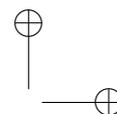
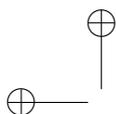


pestered for his opinion by people believing in the eternal life. Whereupon he used to answer that this may very well be so, but that he hoped that on the other side he would not have to meet any of those who had believed in immortality while alive; for this would make for a very boring beyond. This could have been said by Hume or Voltaire, but somewhere else we find Goethe asserting that his belief in our persistence came from the idea of activity; if he worked indefatigably to his very end, then nature had the obligation to assign him another form of existence when the present one was no longer able to support his mind.

That could only have been said before the onset of modern science. In the meantime, we have disregarded so many obligations toward nature that, even if the funny notion of nature's duties in our respect be accepted, nature must have declared itself acquitted a long time ago. Altogether, many people seem to have an exaggerated idea of their esteemed personality and of their worth to the universe. In any event, the notion that a privileged elite – the rich, the bright, the born-again – ought to, and therefore will, be treated in a special way seems to be losing favor, at least among the less prosperous or among those reconciled to being born only once.

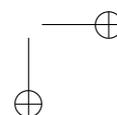
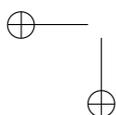
I have, of course, neither the desire nor the right to argue with Hume or Goethe: they knew as little about those things as I do, although they met more people eager for their views. What I certainly do not share is Hume's low opinion of the soul of the drunken porter or of that of the witless infant: all souls are equal. Paradise and Hell surely are equal opportunity employers.

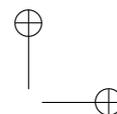




All these discussions only strengthen my impression that in attempting to meditate about death, language deserts us. Even minor branch offices of death, such as cancer or Adolf Hitler, do not call forth strikingly profound thoughts. The beginning, procreation, is equally mute: the times, the timeless times, before the beginning and after the end belong to categories where human language fails. We have no words for them, unless we anthropomorphize wildly, and we have no right to do that where there is neither *anthropos* nor *morphe*. Languages exist in a frame of history; but the unborn belong as little to the history of the past as the dead to the history of the future. Here, and even more so in the idea of God, the unknown is the unknowable, covered by one and the same impenetrable cloud.

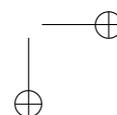
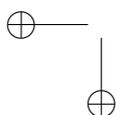
And yet, I shall be told that the darkness has been pierced, and very often, by religious ardor, by poetry, by music. While accepting that, with reservations, I can only repeat what I have said before: illuminated darkness is not light. Fervent belief may be stronger than truth, but it is not identical with it. Not that I want to exalt truth more than it deserves: anyone grown up in science knows what a slippery thing truth can be. You dig for it all your life, and when you have uncovered it, it shrivels and wilts. Then you find out that there must exist a deeper truth, but it, too, proves equally ungainly. One could almost claim that it is the privilege of great poetry and art, and one that science lacks, to lift us above what languages call *truth*. In fact, such concepts as reality or truth are more easily defined through their absence; just as death is the only valid counterdescription of life.

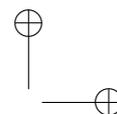




Returning to the concepts of an afterlife and of the immortality of the soul, rejected scornfully by Hume, affirmed mildly by Goethe, we may find that these diverging attitudes derive from two very different types of human character. It would be an oversimplification to say that the ones are guided only by their reason, whereas the others also consult their imagination and their intuition. One of the great early stepfathers of the Christian Church, Tertullian, speaks in the seventeenth chapter of his *Apology* of the human soul as being “Christian by nature.” If for *Christian* I substitute *numinous*, this would in my opinion describe one of the two character types. (One of the Webster definitions of *numinous* is “filled with a sense of the presence of divinity.”) This sense is so deeply ingrained in those who possess it that they simply cannot understand the others who are devoid of it. These, in turn, are bound, with a few exceptions, to look with pity and derision on “the religious types.” The bifurcation suggested here has nothing to do with intellectual gifts or with the adherence to an established religion, although the rationalists, drunk with science and progress, are more likely to look down on the reverential people as feeble-minded than the other way around. No proof of the existence of God will satisfy the ones; none will be required by the others. Those, however, who can speak loudly of their beliefs or nonbeliefs are mostly phonies.

We live in dull times in which faith and sentiment, taste and opinion are simultaneously glossy and feeble. Passion, except for making money, has gone out of fashion. We adore the expert – politicians to govern, morticians to bury – and tolerate abominations that would have

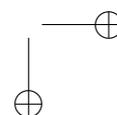
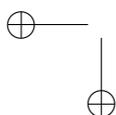


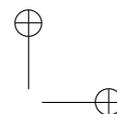


astounded Attila. That the thanatologist, the death specialist, does not yet play the role due to him can only be explained by the fact that for the time being all physicians are part-time thanatologists. But there can be no doubt that in our times, at least in the Western world, the art of dying has become extinct. Especially in the United States, a country that derives optimism from the knowledge that it is an optimistic country, death has become an awkward thing, hidden under synonyms, prettified by circumlocution and embalment. Few things show the barbarity of our time more clearly than its burial rites.

The art of dying? It must have been practiced since the time when human beings first trod the earth, but lately it seems to have been replaced by the stock market. Religions whose canons included a belief in metempsychosis were particularly fertile in treatises teaching the correct ways of dying. Theirs were probably the first how-to books in history, but how different from our present-day best-sellers. The copious literature on death left by the Egyptians belongs, perhaps, to another category, but the fascinating treatise translated as the *Tibetan Book of the Dead* goes back to very ancient times. It sets out, very elaborately, the regimen through which the soul (or perhaps better, the *karma* or the *atman*) may be helped in choosing its next incarnation. Its teachings are still followed by quite a few people.

On the whole, I think that religions that proclaim “The beyond is here” have an easier task than, say, Christianity or Islam. These demand a much greater leap of faith. No one expressed that more persuasively, in a late flowering of marvelous poetic prose, than that genius



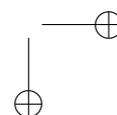
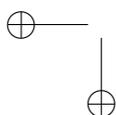


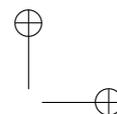
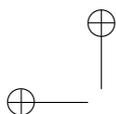
among the early fathers of the church, St. Augustine, in his *Confessions*, in the *Soliloquies*, in the short book *On the Immortality of the Soul*. But the ecstatic certainty of redemption, salvation, resurrection cannot overcome entirely that lasting affliction of the Western mind, the fear of death.

It was this overpowering fear, much stronger in Europe, it would seem, than in other parts of the world, that gave rise, in the Middle Ages, to many books on the art of dying, *De arte moriendi*, or, as they were called in England, on “the craft to know well to die.” That they are now replaced in America by advice on tax shelters or on jogging does not, in my opinion, represent an advance. In most countries the established religions have grown into a giant placebo, an illusory opium of the people who crave ever more potent drugs.

Whatever we do, whatever we think, we remain this side of birth, this side of death. Language, I have already said it, is impotent: when it cannot name, we cannot think. Certainty has eluded the greatest of philosophers; otherwise their activity would have reached fulfillment a long time ago. We are no further along than were the authors of that wonderful epic *Gilgamesh*, in ancient Sumerian times. The hero’s friend lies dying and has a dream (Sandars translation).

Last night I dreamed again, my friend. The heavens moaned and the earth replied; I stood alone before an awful being; his face was sombre like the black bird of the storm. . . . He turned his stare towards me, and he led me away to the palace of Irkalla, the Queen of Darkness, to the house from which none who enters ever returns, down the road from which there is no coming back. There is the house whose people sit in darkness; dust is their

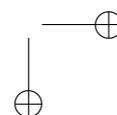
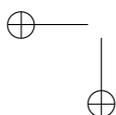


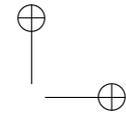
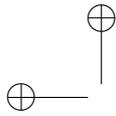


food and clay their meat. They are clothed like birds with wings for covering, they see no light, they sit in darkness.

Nearly four thousand years later, and the darkness has remained. But in contrast to Enkidu, friend of Gilgamesh, we have been told by science and technology that walls are there to be scaled, mysteries to be explained away, and for darkneses there are very strong lamps, not to speak of telescopes, microscopes, and so on. And yet, science has been of no avail, although I suspect that scientists would soon be busy cloning the death gene, if there were such a thing.

But can poetry, can art, or music transcend the walls between which we remain enclosed? Of course, they cannot, though surrealism made a valorous attempt. They can depict the fright, lament the loss, console and deflect. The dance of death exists in many forms and varieties; if it did nothing for the community of men, it enhanced the brotherhood of skeletons. The great poets expressed their horror or their faith; only very seldom could they go beyond that. One who, I believe, succeeded, in truly otherworldly composure, was Matthias Claudius, whose short poem “Der Tod und das Mädchen” (Death and the Maiden) is untranslatable as all great lyrics are. It has, however, been translated, as it were, by Franz Schubert into an incredibly beautiful song. In this form and, perhaps, even more in the andante movement of his D-minor string quartet, which uses the same motive, I seem to recognize the only shy attempt at a glance at the invisible. Other examples I find in Beethoven’s last quartets. In fact, the only form of art from which help in passing the impassable could be expected is music.





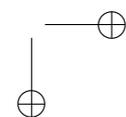
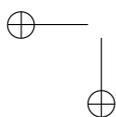
Neither word-bound nor thing-bound, it is, as I once wrote, the only valid detour around the world and its miseries.

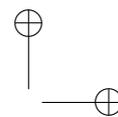
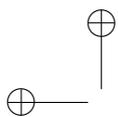
What poetry can, however, do better than other arts is to state. I should, therefore, like to end this brief reflection by quoting from two great poets, both speaking into the same void; one, Donne, jubilant in baroque exaltation, the other, Yeats, more of our times, subdued and resigned.

Holy Sonnet, No. 10

Death, be not proud, though some have called thee
Mighty and dreadful, for thou art not so;
For those whom thou think'st thou dost overthrow
die not, poor Death, nor yet canst thou kill me.
From rest and sleep, which but thy pictures be,
Much pleasure – then, from thee much more must
flow;
and soonest our best men with thee do go,
Rest of their bones and soul's delivery.
Thou'rt slave to fate, chance, kings, and desperate
men,
and dost with poison, war, and sickness dwell;
And poppy or charms can make us sleep as well,
And better than thy stroke. Why swell'st thou then?
One short sleep pass'd, we wake eternally,
And death shall be no more. Death, thou shalt die.

JOHN DONNE

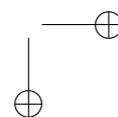
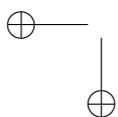


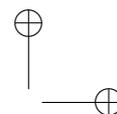


Death

Nor dread nor hope attend
A dying animal;
A man awaits his end
Dreading and hoping all;
Many times he died,
Many times rose again.
A great man in his pride
Confronting murderous men
Casts derision upon
Supersession of breath;
He knows death to the bone –
Man has created death.

W. B. YEATS



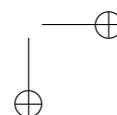
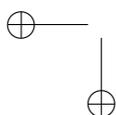


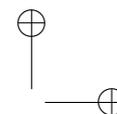
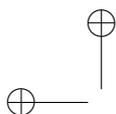
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DECADENCE

Many years ago I wrote somewhere that each historical period was in many ways the decadence of the preceding one, and that this had been true, or at least so felt, since the Golden Age. How original my observation was I cannot say. Even in very early times, there must have been people who complained that the flesh of the captives used to be tastier in the good old days. Who knows? They may have been correct. That is precisely the point. We are used to the grumbling of old age, to the yearning of the old ones for the days of their youth; and although I myself have now reached that undesirable stage, I can well remember my grandmother's longing for her grandmother's time. May we, then, set down all that grouching as one of the normal concomitants of growing old? Not offhand, in my opinion, not without looking more closely at the point in question.

The deterioration that forms part of the human condition, the microdecadence of daily life, is not what I want to speak of here. There exists another rarer and more portentous kind of decadence. To begin with, while the complaints of the ancient cannibals and those of my grandmother may be equally attributable to the passing of time, to the eternal change that rolls pitilessly over those who remember earlier days, the inhabitants of declining Rome, when it was invaded and destroyed

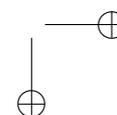
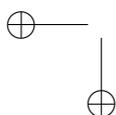


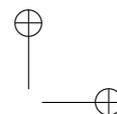


by the barbarians, had weightier grievances. In other words, although it does not happen often that a given society is rightly aware of the complete destruction of its way of life, it does happen occasionally. To stay with my example, the takeover of the Roman Empire by the Germanic tribes was preceded by, and put the seal on, an even greater upheaval: the corrosion of the shell and then the shattering of the framework through the spread of Christianity.

Since the times of Montesquieu and Gibbon the fall of the Roman Empire and the accompanying decline and decay of its civilization have been the classical example of decadence. Even before that, two great Italians, Machiavelli and Vico, had looked deeply into the mysterious imbroglios of the past. When Machiavelli speaks of *corruption* as the principal cause, he takes that word in a much wider sense than is done now, not just a few congressmen tempted and seduced. He uses it as an almost pathological term, a slackening of the textures, a putrefaction of the tissues of society. Such processes do not happen at once, they may take hundreds of years; or, in our fast-moving times, the abacus versus the computer, thirty or fifty. But the final breakdown may become apparent, with a lightning abruptness. In that respect, society resembles those very large and complex molecules or associations of such molecules in living tissues that occur normally in a state of homeostasis that ensures their stability against transitory insults; if these injuries collaborate, however, to a critical size, an irreversible collapse happens suddenly.

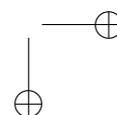
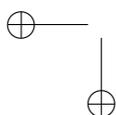
The designation of decadence has also been applied, out of turn, I should think, to certain movements in art

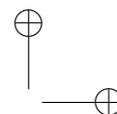




and literature in which an alleged peak of refinement and languid elegance of form and expression went along with a rather timorous brutality and a soon outdated frankness. The so-called *décadents* of Paris, a group of entirely forgotten fin-de-siècle freaks, survive only through the attacks that Tolstoi made on them in that gruff and absurd tract of his, "What Is Art?" Even the "Theater of Cruelty" is surpassed daily by what goes on in the New York subway. This Shalimar-scented decadence is, of course, not the one that I want to speak of. Past cultural decadence is recognizable to us only through the works of art and literature that have been preserved. Occasionally there may also be a few historical or private documents. Autobiography was not a frequent literary genre in antiquity. The first great book of this sort is a Christian document: the *Confessions* of St. Augustine. Individuality was discovered only when the individual was called upon to renounce it.

If we take as one of the signs of decadence the gradual or sudden loss of the ability to do certain things that one used to do very well before, then leafing through a picture book on late Roman and early Christian art may be helpful in that respect. For instance, the greatest glory of Roman sculpture may be seen in their portrait busts, of which specimens can be found in many museums. In contrast to what I said about literature, the portraits bring out the individuality of facial expressions with a clear-sighted sharpness that we do not encounter again before the Renaissance, and even then rarely. But looking through our picture book we shall notice, that toward the end of the third century A.D., and even more in the fourth, portrait sculpture changes into an ever more

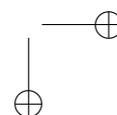
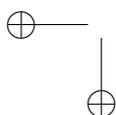


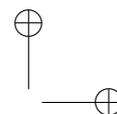


coarsening and awkward depiction of types rather than individuals. Had we been able, however, to interview one of those sculptors whose work seems to us to manifest a loss of the previous skill, he would most likely have told us that what he produced was exactly what he wanted to produce, that the older ways of art were no longer practicable, unless one wished to fabricate a mere pastiche. We should have found it difficult to argue with him, hiding, as he did, behind a universal smoke screen.

Were we to glance at what remained of the literary products of late antiquity, the results would be similar: little originality, much imitation, an increasing barbarization of form and contents, even of syntax. In fact, the depravation of language is perhaps the surest sign of decadence. What I have listed here are, of course, symptoms, not causes, of a decline that must have been brought about by social, economic, and biological changes. But even these changes must rest on a deep foundation for which different people, according to their beliefs, inclinations, or characters, may have different names: Providence, Fate, Chance. Whereas in physics one may conclude from a given cause to a given effect or vice versa, I am not sure that this holds for history. Whenever man enters the scene of history, logic and causality disappear. The fall of Rome has been ascribed to so many causes that I am convinced that none is the real one. There may actually be no cause that we could name.

A man or a woman living during the peak years of decadence would most likely not have been aware of the decline of Roman culture, but much rather of that of Roman civilization. It is not probable that somebody living in the suburbs and returning from work in the

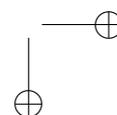
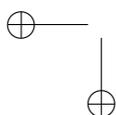


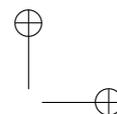
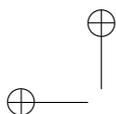


evening could be heard to say “XY has once again written a lousy poem.” But, if you pardon the anachronism, I could well imagine him saying “I used to wait three minutes for a subway train; today I waited twenty. Half the cars had no light, and the doors didn’t open. And when I got out, two guys tried to mug me, but I ran away.” Just as I can imagine that, when the Christians were persecuted, hundreds of concierges stood in line to denounce their tenants.

Am I the anachronist, as it were, of Roman times or the chronist of my own? I am, in fact, convinced that we live in a climactic period of decadence; a decadence that began nearly two hundred years ago and reached the onset of its terminal stage in 1914. The accelerating decline is particularly noticeable in the most highly developed Western countries, with the United States as the self-proclaimed leader; but I do not believe the socialist countries are exempt from it. It comprises, I should think, the entire technomaniac world. To what extent the so-called developing countries (I shudder to think of what we want them to develop into) are also affected, I cannot say. Whoever tries to write something about his own times must know that there is no funnier and more despised figure than the prophet of doom, the peddler of gloom. We like to see smiling faces around us. At a recent, much publicized funeral of a victim, and hence a hero, of progress, the photographs showed the bereaved beaming broadly. I must apologize for not joining the merry crowd.

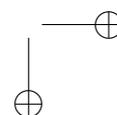
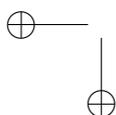
As concerns Western civilization, the breakdown is obvious. Living in the epicenter of the storm, in New York City, I may have too apocalyptic a view; but I

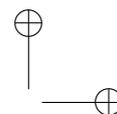




wonder whether there is any large or middle-sized city whose inhabitants would not affirm that daily life has become immensely worse in the last thirty or fifty years. I violate probably all higher precepts of expertdom when I say that civilization is unthinkable without functioning cities. Having lived for fifty years in the same street of New York City, I feel no inclination to become the Pindar of Progress. I cannot think of anything that has improved during that time, but of very much that has got incredibly worse. (I am not speaking of the entire country, in which a few remnants of Franklin Roosevelt's legacy still are visible.) I should say that a city whose inhabitants must fear to use the streets or to enter the leftovers of public transportation no longer functions. Lest I sound excessively parochial I must add that what I have seen of Paris, London, and other large cities makes me wonder whether their decline has not been equally rapid. No glittering veneer of new office towers will make me waver in my judgment, for I remember that one of the ways in which nature announces the imminent extinction of a species is to make it too big for its boots. Or, in the apposite words of Samuel Butler, "All progress is based upon a universal desire on the part of every organism to live beyond its income."

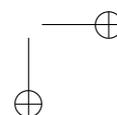
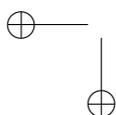
"But the Arts, Music, Literature, do they not flower in our time? How can you speak of decadence? Do you not see a difference between then and now?" Well, things may look different and still be similar. The main difference, albeit more ostensible than real, is the easy reproducibility of the products of human creativity in our time. Literature came first with the introduction of printing, but it is now in the course of disappearing,

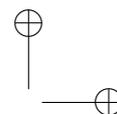
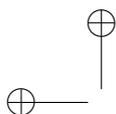




not only because of the high price of books, but also owing to the diminishing ability to read. Familiarity with the music of the past has, thanks to the supply of good records, increased enormously, not to speak of the great frequency and the high quality of concert performances. Similarly, though less immediately, the improvements in photographic reproduction have made it much easier for everybody to be familiar with works of art. That much is conceded readily, but it has to do mainly with the past, with the diffusion of what had been created in earlier days. How about the present?

In one of my previous books, *Heracleitean Fire*, there occurs the following remark: “Is it really an accident that it was in our time, and almost simultaneously, when rhyme and verse disappeared from poetry, melody from music, and the recognizable object from painting and sculpture?” The question was, of course, rhetorical; I did not consider it an accident. Such things are difficult to date, but I should say that it was between 1910 and 1920, not far from the historical turning point of 1914, that all the arts became hermetic. From that time on, it required an expert, not only to create, but also to enjoy. The wider public that could applaud *Don Giovanni* or *Die Schöpfung*, *Tom Jones* or *La Nouvelle Héloïse* has dispersed. Only the higher forms of kitsch still have an audience. Art has become a branch of investment banking; serious writing is delivered up to professorial specialists in hermeneutics and deconstruction. Most of the considerable creations of our time are kept from sinking out of sight only by the thousands of empty dissertations that have sucked onto them. The voices calling



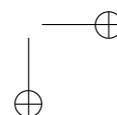
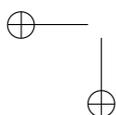


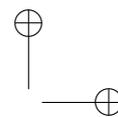
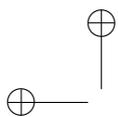
in the wilderness belong solely to experts conversing with each other.

We are being told that this has to be so, that the way to accessible, nonprivate creation had reached a dead end beyond which only meretricious imitation was possible. Why could tradition be handed over from generation to generation for more than a thousand years and then suddenly fall into a deep hole? What insurmountable wall arose between the writers of *Anna Karenina* and of *Finnegans Wake*, only fifty-four years between them? If all serious art and literature disappeared suddenly from the earth, who would notice it?

The most direct sign of decay is, for me at any rate, the confusion of language. I am not thinking of the present-day Tower of Babel in which it is only natural that innumerable, mutually unintelligible specialist jargons of science and scholarship are heard. But consider the language of advertising, which is also that of politics, the language of daily life, the language in which letters are written now. One has the choice between the constipated rumble of *Pravda* and the more diarrheal fluidity of our own politicians, journalists, and other advertisers: everywhere a complete alienation from what human language used to be. No guilty party can be named; we fall, as we fall: is it Kismet? Twenty-five hundred years ago Master Kung recognized clearly that it is the disorder of the language that produces the disorder of the state. It is written in *The Analects of Confucius* (Waley translation):

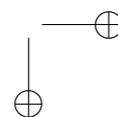
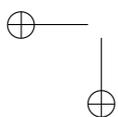
If language is incorrect, then what is said does not concord with what was meant; and if what is said does not concord with what

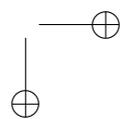
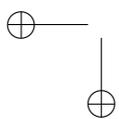
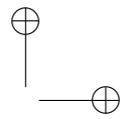
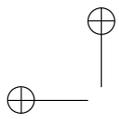


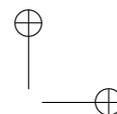


was meant, what is to be done cannot be effected. If what is to be done cannot be effected, then rites and music will not flourish. If rites and music do not flourish, then punishments will go astray. And if punishments go astray, then the people have nowhere to put hand and foot. Therefore the gentleman uses only such language as is proper for speech, and only speaks of what it would be proper to carry into effect. The gentleman, in what he says, leaves nothing to mere chance.

I should be sorry if these words led to the conclusion that all that Master Kung's gentleman lacked was a word processor.





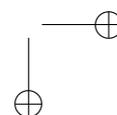
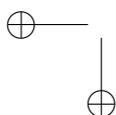


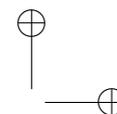
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DEMOCRACY

One day I heard that the American president had sent the marines to a tiny island in the Caribbean in order there to establish democracy. My notoriously etymological brain began to bubble, coming up with such related words as *cannibal* and *Caliban*. But when I quieted down and began to think, it occurred to me that whatever blessings American democracy had to confer, they were hardly of the kind that could be exported by the army. Would there soon be towers of rose-colored marble on Grenada, equaling the Trump Tower of Babel-on-the-Hudson? Would there soon be a subway there that could compare with the splendor, speed, comfort, and safety of New York's IRT?

Our president is a no-nonsense president: when he says democracy, he means it, for he means what he is given to read off. His voice reminds me of that of a man whom we used to call the foxy fox. Only that one advertised a remedy against the infirmities of old age, and listening to his voice one felt a longing for those infirmities, so that one could at last swallow the wonderful medicine in the aural satin of those sleek electronic blandishments. And so, hearing the president's voice, I began to long for democracy. I could not wait, for I had been waiting very long. To tell the truth, I do not think that I have ever been living in a democracy. What I should have called



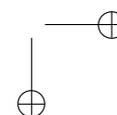
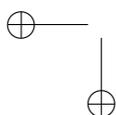


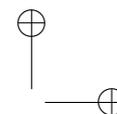
“democratic” when I was young has been on the decline everywhere during my entire life.

The president’s voice had sold me on democracy; but it soon became clear to me that he and I meant something entirely different. Consequently, I looked up the word in *Keywords*, that excellent book by Raymond Williams, in which the convolutions of meaning of important English words are followed during the centuries. But the word *Democracy* proved excessively slippery and serpentine. When I thought I had it in my grip, it got away from me with eellike celerity, disappearing in the turbid pool of shameless advertising jargon.

The original derivation of the word is clear. Democracy in Greek means the rule by the people. But what is rule, what is people? In ancient Athens at its height there were not much more than 20,000 voting citizens. There, one could perhaps have spoken of direct democracy, but only if people were defined very narrowly, neither women or children nor slaves (perhaps 100,000) being counted. My experience with direct democracy, limited to the tenants’ association of the house in which I am living and to the departmental meetings when I was at Columbia University, has not been happy. Whether man is by nature good or evil is here beside the point; but he certainly is endlessly vaporous when called upon to give utterance to thoughts that he has never had. Man is, however, capable of learning, and it is not impossible that the Athenians grew more reasonable in the course of their deliberations, though Aristophanes, that grim reactionary, seems to have been of a different opinion.

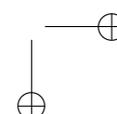
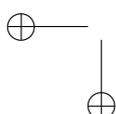
Whether any but the smallest townships could nowadays be governed by direct democracy is doubtful. The

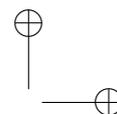




other form, representative democracy, is, however, by far the prevalent one, its name being usurped by some of the worst tyrannies. It depends not only on how the representatives are elected, but also on the way in which the candidates are selected to be voted on. I have heard it argued, probably jocularly, that if only every Russian could be given a *dacha* and access to the privileged stores, the soviet system of election, a multilayered pyramid, would be more democratic than ours. That claim (minus *dacha* and dollar store) is, in fact, asserted in the frequent designation of “people’s republic.”

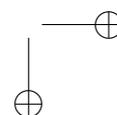
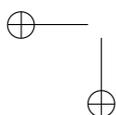
As for me, although I have spent two-thirds of my life in the United States, I have almost never, excepting a few of the Roosevelt years, had the impression of living in a democracy. I know, of course, it is presumptuous on my part to say so, but I have never had the feeling that I could exert the slightest influence on what went on. I felt as a man who was called upon to decide, in free democratic choice, between typhus and cholera. Consequently, it was I who threw the atom bombs on Hiroshima and Nagasaki; who supported, or even set up, some of the most abominable regimes in history; who laid waste to Vietnam and adjacent countries; who squandered irreplaceable resources; who destroyed the beautiful land of America; who drove millions of miserable and unemployed into despair. And again, it was not I, but I taken one hundred million times. And then, once more, it was not those one hundred millions either. Who was it? The obvious commonsense answer is: the Devil. But he, ubiquitous as he is, laughs at me at his most fiendish, pointing out that if it was he, then I must have voted him in. “We have a democratic system, you know.”

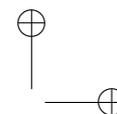




It is true, once a year I gain admittance to a booth, set up, in my case, in a very dirty school building. The booth conceals the upper portion of my body from the outer world while it presents me inside with a rickety machine having a series of levers, some of which I am told to push. While I do that I am said to experience a feeling of near-mystical elation, for I, the sovereign, have put on my thinking cap and have decided the future of the nation. Unless I have moved the levers in one of the first two horizontal rows, I shall, however, never know how many others have done the same. Although six or eight choices are offered, only two count; the others do not even rate mention after the solemn event.

None of the candidates' names is known to me, unless they are repeaters, in which case I vote for the opponent on the assumption that the unknown evil is always the lesser evil. The terrific noise let loose on me during the months preceding the election has left me numb. "Vote for John Fallmerayer for Congress," "In 1984, your Smith is the people's Smith, vote for a man who *cares*," "This message has been paid by the Committee to Elect Charlie Fettuccini as District Attorney," and so on, The grinning winning and the grinning losing faces are all over television. They have all kissed South Korean babies until the supply ran out. There are not enough funny hats to cover the heads of all those running for president or dogcatcher. But the fact remains: I know nothing whatever of the candidates, except what they have paid others to tell me. Their speeches, painting a deep-frozen, ready-to-use land of Cockaigne, have no bearing on reality; they were all produced by identical word processors.

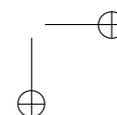
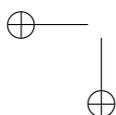


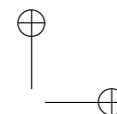


Were I to vote for a vegetarian, I could at least assume that he does not have blutwurst for breakfast. But what do I know about a Democrat or a Republican? Probably less than the Byzantines knew about their circus parties, the Greens and the Blues. Besides, the ancient hippodromes were probably great fun, vastly more amusing than the spectacle of bleak politicians doing their private business under the nation's cupola. To my incorrigible old-world eyes the two great parties look like overgrown college fraternities, and it has in fifty years remained an object of wonder to me that a numerous nation can for very long be governed in this razzmatazz fashion. The answer is that the people really do not care how well they are governed, as long as the richness of a huge country blessed with all the goods of the earth permits them to be left alone. And to be left alone is the true glory of American democracy.

There are, however, questions. "All the news that's fit to print" is more than I can digest, and among the unfit may be just something that I ought to know. Perhaps I am not as much left alone as I imagine. Maybe I am being manipulated day and night, by advertising, by the mass media, by the opinion polls, by Washington's vast propaganda apparatus. The very concept of Public Opinion, in a people singularly devoid of personal opinions, shows that Orwell's Ministry of Truth is doing its work most effectively.

To offer to society an extremely malleable mind is perhaps the price one must pay for one's freedom, or, I should better say, for one's liberties. Despite the thesaurus these two words do not seem synonymous to me, freedom being a quality of the innermost, liberty a polit-

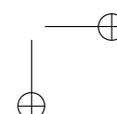
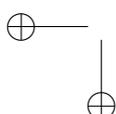


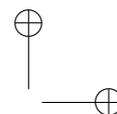


ical attainment. I could imagine someone saying that in spite of all civil liberties he has never felt free in America. Be that as it may, I have the impression that for representative democracy to function in a large country, a great deal of precautionary brainwashing must precede. People lose their freedom so as to keep their civil rights.

Democracy, as I have seen it, strikes me as far from ideal, but still it may be (here, Winston Churchill is right) the best of all possible systems, especially for a thick-skinned, incredulous, skeptical nation. These qualities certainly do not describe the American people, who lack the required counterweight of mental sales resistance, conditioned, as they are, to believe in noise. That the modern propaganda machinery is very hard to resist was shown by the behavior of the normally highly skeptical French during the German occupation. The checks and balances, wisely built into the American constitution by the founding fathers, suffice no longer, as the history of the last thirty years has shown. I see no remedy, since a constitutional amendment, proscribing any form of propaganda and of manipulation of the individual, is unthinkable. How could people buy their drinks or elect their presidents without advertising?

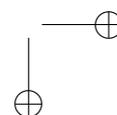
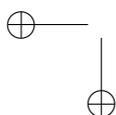
There was one moment when I experienced a kind of democratic exaltation, and that was during the impeachment proceedings against President Nixon. The majestic eighteenth century seemed to rise against our shabby times. But even that could only happen because the president was Byzantine blue and the House Byzantine green. In any event, my civic elation soon subsided, for there were pardons, resignations, camouflage, and more. Much of what happened, especially the unexplained and

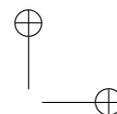
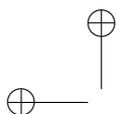




unexplainable, horrible murders of John F. Kennedy, Robert Kennedy, Martin Luther King, and Malcolm X reminded me of what I had read about the last centuries of decaying Rome. It seemed that the country had gone, in one leap, from infantility to senility. And so, listening to the articles of impeachment, I made the prediction, in short-lived ardor, that from now on all presidents would end impeached, just as during the period of the soldiers' emperors all Roman emperors were murdered by their troops. Subsequent events, I am sorry to say, invalidated my prediction, showing that there are dangers in drawing historical analogies; but there still is hope: perhaps I ought to have limited the prophecy to the second presidential term.

America is a Manichaeian country. Whether it has always been, I do not know; maybe its Calvinistic heritage has something to do with it. That cannot be the entire explanation, however, for now the so-called neoconservatives blow the same bugle. The people, as they see themselves, are the children of the realm of light; the others, especially when they vote against them in the United Nations, belong to the vicious realm of darkness. For quite some time, at least since Woodrow Wilson, the country has been sending out precepts to the world to come to order and make money, while inside it became less and less orderly, as shown by the frightful increase in crime. And so, it meddles as it muddles. But never so much as in the last few years in which the final, the terminal struggle seems to be between Ronald Ormuzd and Yuri Ahriman. I was, hence, not surprised when the former, our nonsense president, speaking in Orlando, Florida, described the Soviet Union as "the focus of evil

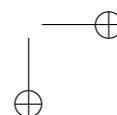
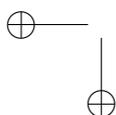


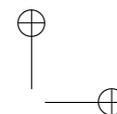


in the modern world.” He did not know it, but he was in good company: St. Augustine was in his youth, before he saw the light, an “auditor” in the Manichaeian cult. More surprisingly, however, the president continued: “We Americans are enjoined by Scripture and the Lord Jesus to oppose the sin and evil in the world.” I looked it up in my copy of the Authorized Version: there is nothing about America in the Bible. There is, however, a noteworthy passage in St. Matthew, Chapter 7, Verse 5, which it would be good to contemplate.

“How merciless, how shameless,” I said to myself, for the name of Stalingrad came to my mind and the streams of Russian blood that were shed not only there, so that only forty years later such presidential words could be spoken in free and prosperous America. Forty years is not such a long time. Decent states ought to remember; only tyrannies falsify the past and kill the memories. My eyes fell on a passage in George Orwell’s *Nineteen Eighty-four* in which he explains that only a few years ago “Oceania” and “Eurasia” had been allies. He continues: “Oceania was at war with Eurasia: therefore Oceania had always been at war with Eurasia. The enemy of the moment always represented absolute evil, and it followed that any past or future agreement with him was impossible.” That scene takes place in 1984; the president had spoken in 1983. I concluded that America is in danger of becoming a totalitarian democracy.

The optimist will say that this state need not last, that we still live in a democracy and that the popular will may make the dialectical swing go to the other side. The pessimist will reply that not only is this getting more difficult all the time, but that it would make no difference

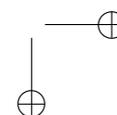
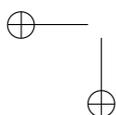


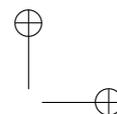
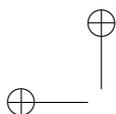


because (with due deference to dialectics) the same kind of people are sitting on both sides of the swing. There are several reasons why the popular will is so poorly represented by the executive and legislative authorities that it ostensibly elects. Enormous sums of money are required for any candidacy; the techniques of reaching the electorate, mainly through advertising in the mass media, are so costly and complex that a separate class of politicians has evolved, a class of people who are experts in getting elected. To know how to win votes is a specialty that has nothing to do with statesmanship and the ability to rule. Ours is a century in which the veneration of alleged expertise prevents anything from getting done properly.

The excessive powers of the president and the enforcement of a completely unrepresentative two-party system have brought it about that we live in a democracy of pressure groups. I believe that the opinions of a thoughtful person had a better chance of being heard during the absolutist regime of Louis XIV than they have now. Noise produces deafness; no outcry of suffering humanity can pierce the dullness that now seems to have enveloped the country. Free speech? But there is nobody to speak to. Free press? But who would buy a really free newspaper and how long would it exist? Free assembly? That applies only to rock concerts and baseball games. Free thought? Thought was free even under Nebuchadnezzar and probably did then more good than it does now. In all the mechanically produced uproar the huge country has fallen mute and deaf.

I am sure the great Jewish prophets were reproached by their audience that they knew only how to tear down

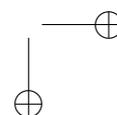
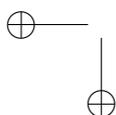


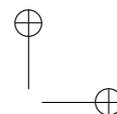


in blind despair; they ought to engage in constructive criticism. Isaiah or Ezechiel would not have used the word *jeremiad*, but they could have pointed out that a jeremiad is a very constructive thing. Just as in the Greek tragedy the wailing of the chorus produces a metaphysical shudder in the audience, for there is a God who never forgets, the first reaction to a disaster must be tears. That man has lost the ability to weep has diminished him.

Help and reconstruction must, of course, follow. But I have the impression that, in the case of the United States, thinking people are afraid, in view of the lability of the entire edifice, to make even the slightest change in an arrangement that has outlived its usefulness. They fear that the exchange of a single brick here and there may bring about the collapse of the whole. Otherwise, one could say that the cabinet system of most of the Western democracies, pitiful as it sometimes appears, and the three-party or multiple-party parliaments are superior to the way in which America is governed. Nowhere else is the power of money at election time as terrifying as here. An August Bebel or an Aneurin Bevan could no more get elected than an Edmund Burke or a Thomas Paine. Whether people of sufficient stature still exist, I do not know; but under the present conditions it is most unappetizing for them to come forward and almost impossible to get noticed.

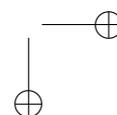
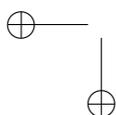
Representative democracy, as I have observed it in America during a long life, is neither the one nor the other; it probably never was, for Tocqueville saw many of the evils as long as 150 years ago. Since our industrial civilization has brutalized man even more than he is

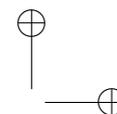




by nature, hope in his inborn goodness is indeed less justified now than it was in the times of Montesquieu and Rousseau. There is, however, a mild degree of reasonableness that can be attributed to him if he is not manipulated. A representational arrangement that would make it possible for the people to express their political opinions could take the following form.

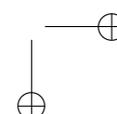
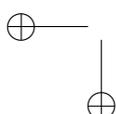
1. There exist five political parties, which I name by the pure colors of the spectrum, going from the most conservative Violet, via Blue, Green, Yellow, to the most radical Red.
2. The parties, which must have free and equal access to all media of communication, nominate all candidates in pairs, one woman and one man. One of the candidates (chosen by lot) acts as a substitute. The minimum age of the candidates is twenty-one.
3. The voting age is fifteen years. Both citizens and permanent residents have the right to vote.
4. All election costs must be limited, equal, and borne by the nation.
5. Elections are held every two years for one-half of both the upper and lower houses. Off-years are reserved for voting on popular initiatives.
6. The Upper House comprises one hundred, the Lower House four hundred members. The election procedure will assure that both houses contain roughly equal numbers of men and women.
7. Each member serves for four years and can be re-elected only four years after the expiration of his or her previous term.

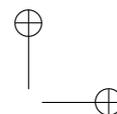




8. All representatives are subject to recall by their constituencies, to be replaced by their substitutes.
9. The country is governed by a collegial cabinet, consisting of a coalition of the three largest parties. One-half of the cabinet is chosen by each house from among its members. In addition to the usual departments, there are those for Children, Culture, Disarmament, Environment, and Grievances (Ombudsman). All cabinet members can be removed from their posts, but not from their seats, by a vote of no confidence. The cabinet is administered by a secretary, chosen from its midst for two years.
10. The cabinet also elects, from its own members and on a rotating basis, the president who serves one year. His function is purely ceremonial and ornamental, receiving ambassadors, distributing medals, and the like.
11. Wars can be declared only after a plebiscite in which only those below thirty-five years of age participate.

The scheme outlined here lends itself to many variations, such as list system or proportional representation. Lest I be accused of having made this proposal tongue in cheek, I want to point out that I have never been able to keep that important organ of speech and taste in any other position, much as I have tried. Irony is, in our present world, the only hopeful survival policy. Satire is even better, but it has become impossible in our literal, humorless times. But let us be serious and assume that I have placed the scheme before the reader mainly to suggest that a truly democratic way of expressing the will of the people could be devised. Only a fool would

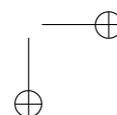
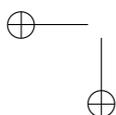


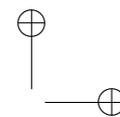
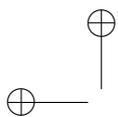


think of touching the Bill of Rights, but if the people, the *demos*, are really to be in charge of their policies, it ought to be possible to think of a better way than is warranted by the present chaotic and unrepresentative two-party system with its meaningless platforms and elections in which money talks so much louder than the candidates.

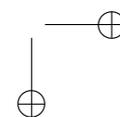
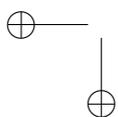
In my scheme, no president could dance his daily tarantella of hate, no professional demagogue could whip up the all too ready, all too human, jingoism slumbering under a thin crust of civility. I believe it is not realized generally how often it is the rabble-rouser who produces the rabble. The arrangement proposed here would deprofessionalize politics by bringing the ordinary citizen, man and woman equally, into the process. It must, however, be admitted that, in trying to reverse Gresham's law, it is probably an utopian plan.

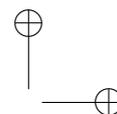
What even the most imaginative of schemes cannot overcome is the curse of bigness. Is it for that reason, is it because of their riches, that the United States have for quite some time arrogated to themselves a messianic mission? Had I anything to say, I would say that they should not begin reforming the Soviet Union before rehabilitating the New York subway. Before it is exportable, democracy begins at home. Comparing the operation of democracy in a small country, say, in Switzerland, with that in America, one cannot fail to observe that there exists a critical distance between the citizen and his representative; a distance that is exceeded in the enormous country. The argument that size makes for efficiency is wrong: bigmouthedness is not greatness. Whoever follows the waxing and waning of large and aggressive





empires in history will see that compression and uniformity give rise to countervailing centrifugal forces; forces that, I believe, begin to be noticeable even in America, a country with a short history. Or have we reached the end of the historic process? Normally, one would have denied that, perhaps in declaring, trivially, that the future is always bigger than the past. Since these dimensions are defined and comprehended by human consciousness, and in view of the recent triumphs of nuclear physics, I am afraid, this may no longer be true.



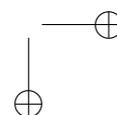
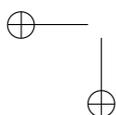


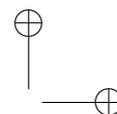
E

EXTRATERRESTRIAL INTELLIGENCE

Many a child must, on a clear night, have looked up to the firmament and wondered about the stars. Growing up, he may have forgotten the innumerable questions he then asked himself, most of them unanswered and even unanswerable. Actually, a child growing up in a city may never have seen the stars in the sky. During the process of learning what was being offered, the gift, the marvelous and indispensable gift, of wondering shrank or vanished. This faculty of wondering, of being astonished, has little to do with curiosity which, though considered generally as the fountainhead of science, is most often a form of snoopiness. Only the most perspicacious of adolescents may have noticed that the answers forced on him never responded to the questions that once had moved him, that he was being coerced into a makeshift of conventional, and often unwanted, knowledge. And when, at the end, the adult, amid a clutter of ready-made answers whose finality carries an expiration date, was made to cry out, in the contrition of a helpless heart, "But I don't know where I am going," Science and Technology were heard to reply "Thanks to us you will be there faster."

It is not unlikely that the contemplation of the starry sky had a different effect on young Immanuel Kant than on our scientific quiz kids who both at eight and eighty

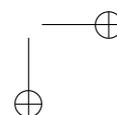
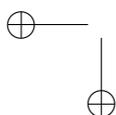


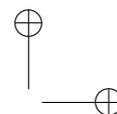


years of age exhibit the intelligence of a fourteen-year-old. Specimens of that kind must, of course, have existed in all times, but previously they would hardly have been given the means to test the reality of their fancies. Nowadays, there is nothing foolish enough not to produce somewhere a mumble of feeble-minded assent. On the other hand, the future will be constructed out of the projects rejected at present by well-informed, “state-of-the-art” authority.

It is, hence, not surprising that for quite some time a search has been going on for signs of “intelligent life” in the universe. If you object that the universe is a bit big, you are of course correct, but never mind. One can always search, and with some luck something will be found, though seldom what one was looking for. In that particular search, however, the scanning of the heavens for signs of articulate life, nothing has been found. Negative results are usually meaningless in science, but under the specific circumstances the failure was not taken to demonstrate the metaphysical emptiness of the brains undertaking the experiment, but as an indication of the emptiness of the universe: a premature conclusion from a silly enterprise.

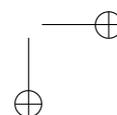
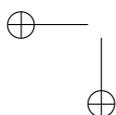
The problem itself is of venerable, though not excessively exhilarating lineage. When in ancient times travelers to distant lands returned home, they had shocking tales to tell of what they had encountered: giants and dwarves, centaurs and unicorns, and some strange men who carried their heads in their hands. Let us, for instance, hear from a best-seller of the fourteenth century, Mandeville’s *Travels*. Mandeville writes of the island empire Dondun.

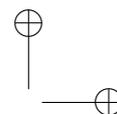




In one of these isles be folk of great stature as giants, and they be hideous for to look on. And they have but one eye, and that is in the middle of the front. . . . And in another isle toward the south dwell folk of foul stature and cursed kind, that have no heads. And their eyes be in their shoulders, and their mouth is crooked as an horseshoe, and that is in the midst of their breast. And in another isle also be folk that have no heads, and their eyes and their mouth be behind in their shoulders. . . . And in another isle be folk that be both man and woman, and they have kind of that one and of that other. And they have members of generation of man and woman, and they use both when them list, once that one and another time that other. And they get children when they use the member of man, and they bear children when they use the member of woman. . . . Many other diverse folk of diverse nature be there in other isles about, of the which it were too long to tell and therefore I pass over shortly.

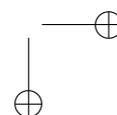
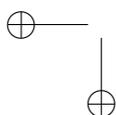
Many a geographer inscribed the white spots on his maps with “There dwelleth monsters.” Those kept on dwelling even in more enlightened times, although in an amusingly scientific disguise, for it was in the middle of the eighteenth century, when Maupertuis, Voltaire’s hapless enemy, proposed an expedition to Patagonia, in order to dissect some of the reputedly giant inhabitants and isolate and study their souls. It stands to reason that big people must have big souls, and before the advent of micromanipulation and microchemistry such a project ought to have passed any peer review. As the general level of terrestrial intelligence was then considerably higher than it is now, there was, however, neither a peer review nor did the expedition take place. In the meantime science has taught us not to laugh at it, but to run for shelter whenever there is a brainstorm.

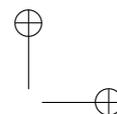




It is a frequent observation that the wave of the future shows its first ripples on the pages of a book, often a quite stupid one. I must, however, in this connection make a confession that may disqualify me: there are books whose very titles make it impossible for me to contemplate reading them. Suppose you go into a bookstore and there you see a book titled *We Are Not Alone*. “Well,” you might say, “he is right: asses are never alone. If you have seen one, you have seen humanity.” But leafing through the book, you become aware that this was not what the author meant. His artless prose attempted, more through sign language than through consciously constructed sentences, to convey to you the idea that there must exist intelligent beings on other stars.

Of another book of the same kind I am not even sure whether I have had it in my hands or whether I dreamed of it in a nightmare. Its title was something like *There Is Someone Up There*. Why not “down there”, I wondered, suspecting the universe to be all around us. But never mind, it was the same old probabilistic porridge that is being dished out to us in many disguises. First you take an event of which you do not know how it happened and then you calculate the probability that it happened more than once. If I said to you, “Look at that baby. Baby Betty was born. What is the probability that Betty will be born again?” you would rightly consider me a fool. Mathematics and metempsychosis do not mix. We all know that each human being is an irreplaceable individual, with his or her unique characteristics, with his or her personality which cannot be duplicated. Be it Providence, be it genetic roulette, we know there cannot be a second Betty. But if I said “Look at Man. Man was



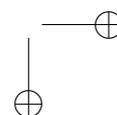
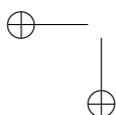


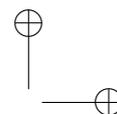
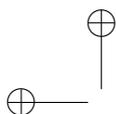
created by God or by nature. What is the probability that he was created more than once?" you consider that a serious question and you start hitting the computer buttons, then you apply for a grant and erect huge radio antennas to receive signals from outer space.

To my knowledge none of the signals pointed to the probability that somewhere, light-years away, an effort was being made – can we call it a human effort or an intelligent effort? – to get in touch with us, in answer to our insistent electronic pleas.

A narrow-minded, prosaic person could say that it is senseless to search for things that, once discovered, one would not know what to do with. But Common Sense would answer, and rightly so, that, if the human mind had been thus restrained in the past, the wheel would never have been invented. First you discover, and then you see what you can do with it. That applies to all the glories of science, including the atomic bomb, but is it true of the search for radioastronomic pen pals? Many people will say yes, for much of our acquirable knowledge is useless to the strict utilitarian. All that is knowable, they will assert, ought to be known, but they will not tell us by whom. If it is good to know how much Alexander's campaigns cost the Greeks and the Macedonians, then why not also that there are beings of advanced intelligence somewhere in the galaxies who make peep-peep on the radio with rhythmic intentionality? The Man Who Has Everything can well afford a few of his millions for a final disproof of the Book of Genesis.

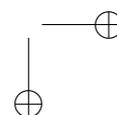
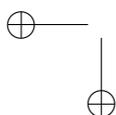
What would be the consequences of the indirect demonstration that Man is not unique in this world of his? Have we not anyway learned in grade school that human be-

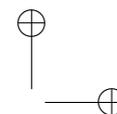




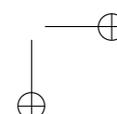
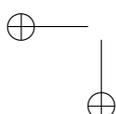
ings are animals? One could almost say that he who wants to be an animal will be one, just as he who does not believe that he has a soul has none. Actually, I think, the consequences of such a discovery would be insignificant. They would only serve to strengthen the impression that modern science has become a spectator sport. Whether the paper tells him that a woman in Hyderabad has given birth to octuplets or that signals brimming with intelligence have been received from the Milky Way, ordinary man is hard to move. After four hundred years and more, his way of life has barely been affected by the great vision of Copernicus.

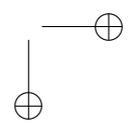
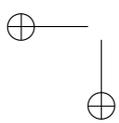
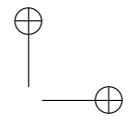
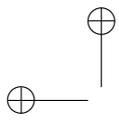
It was Nietzsche, when his mind began to falter, who devised or revived the myth of the eternal return of all things, *die ewige Wiederkehr aller Dinge*. I do not know how far, if he had continued to write, he would have driven the view of the general circularity of all events and of all things – perhaps to the vision of another Nietzsche, thousands of years ago, collapsing insanely on the streets of another Torino? In any event, every student of chemistry begins his laborious itinerary by hearing about the so-called law of the conservation of matter. But even the most dim-witted of adepts will hesitate to extend the notion that no atom of gold can be lost to the assumption that the gold contained in Benvenuto Cellini's saltcellar could ever coalesce to the same unique shape, once the work of art is destroyed. Put God or nature in the place of Cellini, and you will see what bothers me. We are being invited, day and night, by the combined siren voices of science, commerce, and politics to renounce the idea of the uniqueness of Man, and I resist that pernicious pressure.

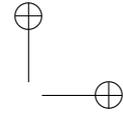
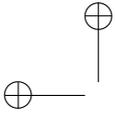




The currents have, however, all been going into the opposite direction. Our time, dominated by the omnipotence of a misunderstood and abused science, is perhaps the first that could be called theoclastic: we are being told that God has been broken, that He is dead. Man has been recognized as a thing, made of carbon, hydrogen, nitrogen, phosphorus, sulfur. The reification of life, of mind, of reason has progressed fearfully. If Man is but a heap of molecules, assembled by chance, that still may require, with the help of genetic engineering, some rearrangement for greater efficiency, then why should the same or similar molecules not have met even more successfully, eons ago, on another temperate star? Well, why not indeed and why not in many diverse places? Of course, I reject all that nonsense, but if you want to, you may plunge right into the middle of the myth of the eternal return. Creation or hominization then are a repeated process and “diverse folk of diverse nature, hideous for to look on” may dwell on many suitable stars. If some of those universarians were, a long time ago, as bright as we are now, they must have split their atoms, caressed their nukes, and bombed themselves out of existence long before us. That is the reason why they are now so stubbornly silent. If a few little men survived their holocaust, that is when they turned green and grew those well-known antennae on their foreheads.







F

FROZEN DELIGHT

On April 11, 1984 *The New York Times* carried the following item.

First Baby Born of Frozen Embryo

Australian Scientists Report Mother and Girl Are Well After Caesarean Birth

MELBOURNE, Australia, April 10 (AP) — A 5 1/2-pound infant girl named Zoe is the world's first baby produced from a frozen embryo, scientists announced today.

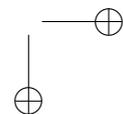
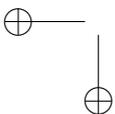
The baby was delivered two weeks ago by Caesarean section, but her birth was kept secret to protect her family's privacy, according to scientists at Monash University.

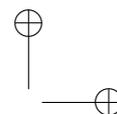
"They are both fine, a healthy mother and baby," said Prof. John Leeton, a member of the in-vitro fertilization team that helped produce the baby. The names of her parents, who have reportedly sold their story to an Australian magazine, will not be released by the university, he said.

The birth resulted after an ovum from the mother was fertilized in a laboratory with her husband's sperm. The embryo was then frozen, reportedly for two months, before being implanted in the woman's uterus, where it developed normally.

The scientists did not say why the frozen embryo was used in this case rather than the standard procedure, in which the embryo is implanted a few days after fertilization.

Frozen embryos would enable hospitals to store them and impregnate women who were unable to conceive naturally, the Monash University scientists have said.

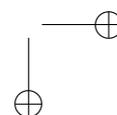
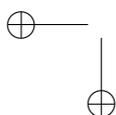


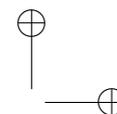


How many, I wonder, of those reading this news will have shared my horror? Or am I all alone, conspued by four billion minus one? The giant wave of progress has apparently carried all of mankind past me, as I cling despondently to my dismal reef of solitude, but I can see them far away, gamboling in the splendor of fulfillment: they have been promised dispensations of an unprecedented kind; what man used to call his fate or destiny will soon be abolished. Or, even better, he will be able to receive it by mail order.

“All of mankind” is, of course, hyperbole. There must be very many who share my dismay, and even more who live so far away from progress and from biomedical research as to be unable to take notice of the innumerable blessings that the eager improvers of the human lot are preparing for them.

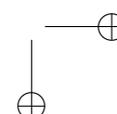
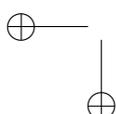
Older and perhaps wiser times believed in Providence, and, inscrutable as it must have appeared to them, they bore the afflictions so often heaped on them in pain and submission, though not without tears and bitter complaints. The Book of Job remains one of the greatest poems ever written. As I look around, even I find it hard to remember that there were periods when people did not think that God created the world as a tax shelter. Lured by the shrill advertising claims of science and technology, we are willing to assume that nearly everything is fixable; and as for what cannot yet be averted or healed, well, the impossible will take a little longer. The operative phrase is “not yet”; there is no such thing as “never.” The Latin word *fatum*, fate, means “what has been spoken,” but the voice that spoke is no longer audible, perhaps because there is too much gibberish in FORTRAN.

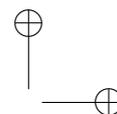




Returning to the news report that generated this brief meditation, I must first make a confession that does not come easy to an old biochemist. Not knowing what life is, how could I say when it begins? We have all been made aware of that truly unsolvable crux during the never ending debates about the morality and the legality of abortions. I do not want to take part in the dispute whether even an eight-cell embryo is “alive.” In certain respects it undoubtedly is; and I would indeed go further by pointing out that, even before fertilization, the paternal spermatozoon and the maternal egg must be viable, in order to conjoin to form the embryo. Still, there is one great difference between those two states of living: sperm and egg are, during certain portions of the life span, capable of being formed again (as are, during even longer periods, nails and hair), but the embryo is not. The embryo carries the singularity, the uniqueness, the awe-inspiring ineffability of the individuum. We have completely lost the sense of that aura of irrepeatability surrounding each human life; otherwise we should not be witnesses to the endless stream of babble that talks everything into inanity. For, on the other side, where the state sits in its countinghouse, it is well known that soldiers, taxpayers, and recipients of social security numbers are susceptible to endless regeneration.

When people still believed in the existence of the immortal soul it would have been easy to argue with them about the proper manner in which questions of birth and life ought to be approached. Now that science has taught us that a living being is nothing but a piece of DNA packed into a shell of skin and slime, this has become much more difficult. Nevertheless, even now many will

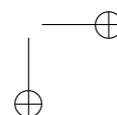
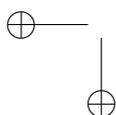


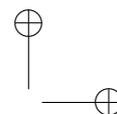


agree with me when I say that the first appearance of a child in this world and the subsequent humanization of the tiny bundle – the first smile, the first walk, the first words – that those belong to the greatest mysteries of human life. It is true, our reductionist times have deprived many of us of whatever receptors of the unknowable our minds may have possessed. There is nothing as unfashionable nowadays as the impenetrable, for a hundred searchers for trivial truth will claim to have penetrated it with their unsuitable measuring devices. What they have unraveled are really pseudomysteries, puzzles fabricated to be solved, mockups of the world.

But those who have first agreed with me will also not dispute me if I say that the mysterious precincts in which life is transmitted, to grow into an incomparably unique creature, that they must be approached with great reverence and with great delicacy. Instead, we have permitted this territory, despite all the high-power trappings of molecular biology at its cutting edge, to be made into a commercial stud farm in which mothers are hired for a womb fee. Born of a donor and an incubator, children will grow up into a dehumanized world empty of love and of sense, into a thermostatic world of tissue culture and sterile nutrient. So little is needed to make a human being and so much. We deserve what we expect: mail-order children will get mail-order parents; but I am afraid that those living fifty years from now will become aware that there exist mail-order houses of the mind which deliver nothing but poison. They used to be called Hell in credulous times.

The ever growing persuasion on the part of many scientists that they are called upon to replace nature

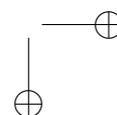
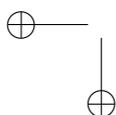


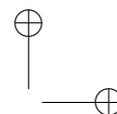


has found its clearest and most brutal expression in the designation of “genetic engineering.” I could not have imagined anything farther removed from the necessity of being designed and machined than is human life. Even the thought of it would have appeared to me, Rip van Winkle that I am, sacrilegious. But here we are, splitting and splicing, messing and fussing, as if we could counteract processes fashioned in millions of years. I am told that now, at last, man has taken his fate in his own hands; I wish they were cleaner hands. Who would have thought, in the early days of research on “recombinant DNA,” that it would so soon be possible to deduce the well-being or the malaise of a scientific discipline from the stock exchange quotations of the firms exploiting it?

Experiments on human beings have hitherto been shunned, if not proscribed, there still being too many people alive who remember the Nuremberg trials, though I have the suspicion that much more is going on than we are told. But in the area of fertilization and embryonic development it seems that the barrier has been breached openly. Experiments with human fetuses are performed in many laboratories. Moreover, the grave dilemma of abortion with which society is faced has made out of the fetus a disposable by-product of a social situation, removing a taboo that may have existed before.

In the customary investigation of embryos no mortgages on the future are involved, for the material is either dead before the study or in no condition to survive it. The situation described in the news report forming the motive of this essay is, however, entirely different. Here I believe, though the information is meager, one can truly speak of experimentation with a living being, as

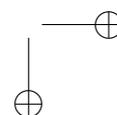
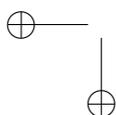


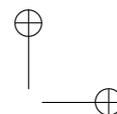
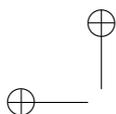


shown by the allegedly successful outcome. After the fertilization in vitro the embryo was kept frozen for two months before being implanted into the uterus. As we deal, presumably, with serious scientists, I assume that various methods and periods of freezing were studied and the most suitable ones chosen. Is freezing for two months better than for six or twelve? Is dry ice better than liquid nitrogen? What happened to all the Meta- and Epi-Zoes before Zoe herself could be cut out of her mother? And what, for that matter, will happen to Zoe in two years or in twenty or sixty?

Here, I should like to interlace a short remark. The miracles of modern medicine, or, to use the cant word, biomedical research, are spread out over all mass media: transplantations, implantations, artificial organs, test-tube babies, and so on. But we hear almost nothing of the aftermath. Are they all kicking and will never die? In my opinion, each Hall of Fame requires, as its counterpart and made public at equal decibel strength, a corresponding Hall of Shame. Each great deed of molecular biology, of genetic manipulation, of sensational surgical intervention ought to be revisited one year, five years, ten years after the great event, and the public ought to be informed of the state of things: a report that, I am afraid, will often turn out to be postmortal. There would seem to be room for highly investigative reporting, but this is not done, except for occasional subdued admissions in the professional literature.

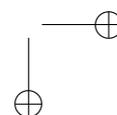
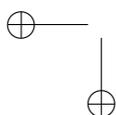
Why was Zoe, or better Proto-Zoe, frozen at all? Was it too hot when she was “conceived” in the sterile dish? Did the parents want to undertake a little trip before submitting to the discomfort of delegated motherhood?

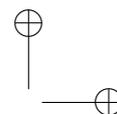
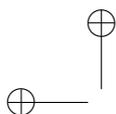




Or, most likely, did the team of researchers wish to explore the possibility of establishing an embryo bank? The entire news story is astonishing enough, but the last paragraph opens vistas that some of us would rather not have seen. Will there soon exist embryonic department stores where one will be able to shop for the embryo that comes up to specifications?

Every practicing biochemist has engaged in a lot of freezing, which means essentially the removal or the immobilization of water in the form of ice. It is a much-used procedure for preserving the chemical integrity, not necessarily the morphological or the biological integrity, of a preparation. The reactions of the living cell are performed in an aqueous environment, and, by lowering the temperature and immobilizing the water, the frozen cells or organisms will be protected largely from deterioration or degradation, as the enzymes contained in them will be prevented from acting. So far, so good, and let us be grateful to nature for having provided us with different states of aggregation. In my greener years my own laboratory resembled a little Kamchatka, so much freezing did we have to do. But, in the world of the living, water is not only a solvent, it is also a structural component of many complicated substances of high molecular weight, such as the proteins and the nucleic acids. As concerns the latter, whose role as the repository of the genetic information governing the transmission of inheritable properties is well known, I should hesitate to say that their genetic integrity is never affected by the freezing. A slight injury to the DNA during freezing, and even more during thawing, could have a far-reaching effect.

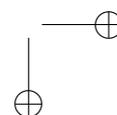
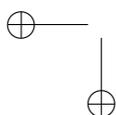


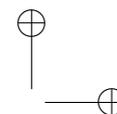


The reply to my doubts will, of course, be that the proof of that particular pudding lies in the fact that Baby Zoe was born. But in the case of a human being, hatchability, as it were, is not the only condition that must be met. Human beings are not yet cattle or hens, though they are on the way of becoming so; and the hopes and expectations that accompany their lives transcend even their ability of becoming taxpayers. I cannot think of any person whom I should entrust with the power to influence the fate of a human being.

By a decree of the Devil, all important technical innovations carry with them the curse of soon becoming indispensable. People cannot imagine how they could have lived without them; still, their ancestors did, and often quite successfully. As the procedures become established, more and more test-tube babies will be produced, and later many may come from the instant-frozen department store. In the procreative future of humanity the scientific laboratory will become a most decisive agent.

In the laboratories of my time, one law was quoted more often than all the well-known laws of nature, and that was Murphy's law: "Anything that can go wrong will go wrong." Whoever this Murphy was, he was a great man. In a decent laboratory more results are thrown out than are published. I remember from a dissertation the moving statement of a graduate student: "This here experiment did not come out so good." Fallibility is a general human condition, and nature has wisely prevented man from playing Providence. That is, until our time with its breakthroughs and revolutions, when science has arrogated to itself functions that eventually may lead to its downfall. Scientific optimists may, however, foresee

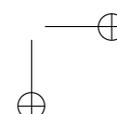
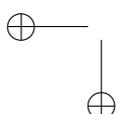


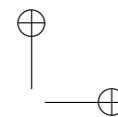
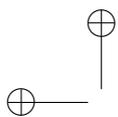


a future when children will be produced by fertilization in vitro (later, perhaps, with synthetic sperm and eggs) and brought to maturity in an artificial uterus. At that time, it goes without saying, all old people will die by execution.

Less jocularly and more statistically, I should like, however, to ask when we shall be able to decide whether the various procedures applied and contemplated are really innocuous. How many years must elapse before one can say that nothing unusual or unexpected has happened to the children produced under such unnatural conditions? After all, the destiny of a human being begins, but does not end, with birth. More strictly, it has, in fact, begun with conception. If the cases multiply, in which fertilization and pregnancy followed the new scientific observance, and with Murphy's law kept in mind, it is not farfetched to assume that the man- or woman-handling of the embryo will prove, seldom or often, far from harmless. A very long time will have to pass before statisticians and pathologists will be able to arrive at an opinion. Although disappointed in the case of chemical and radiation injuries, I would much rather put my trust in the keenness of the legal profession, who have developed an exquisite feeling for the possibility of malpractice suits.

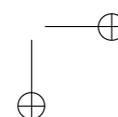
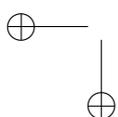
Society is obviously bewildered before the advances of science; it has grown accustomed to expect them, but does not know how to digest them. For the physician, brought up to heal the sick, everybody is a patient. There are men who want to be fathers and cannot; there are women who want to be mothers and cannot. What more natural than to trick nature? But even the physician or

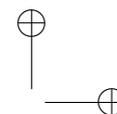




the scientist ought to be frightened by the irreversibility of what they are doing. There is no recall of a living being except by murder. This is no longer the exercise of the healer's art; it is a Manichaeian undertaking in which the scientist plays demiurge.

I wish Zoe the best of this world. May she prosper, but on condition that she remain the one and only swallow – the one that does not make a summer. What a simple and transparent world it was when we were told that it was the stork who brought the babies into the world. He at least knew what he was doing.



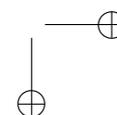
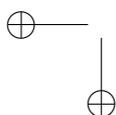


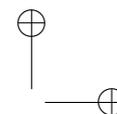
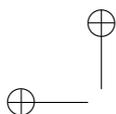
G

GENETIC ENGINEERING

Readers of the business pages and of the stock market reports in the newspapers must have encountered, with increasing frequency, the term *biotechnology*. A great deal of money has been poured into firms sporting that designation, and perhaps even more money has been lost when the value of most of the shares declined precipitously. A lot of nonsense is being written about the limitless potential of that branch of manufacture, which seems to ensnare so-called venture capital more effectively than birdlime ever captured a bird. Stock analysts, listening to vapid addresses by Harvard professors, grew prematurely enthusiastic and advised investment in that new line of business. (Looking at those melancholy professions, I am reminded of the saying that greeted me soon after I came to America many years ago: "If you're so smart, why ain't you rich?")

It is true, a fusion between two such stock exchange giants as Life and Technology sounds extremely encouraging, and it may be that a few, very few, of the promises which the trumpeters blared so profusely will be kept. It could also be, however, that life and technology are no more compatible than roses and garlic, and that the disappointed investors will have to wait for the oil of another snake, extracted perhaps by those scientists who became unemployed when interferon did not cure cancer.

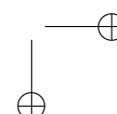
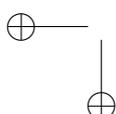


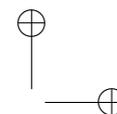
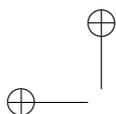


Biotechnology is a newfangled name, but the first baker to use yeast, the first brewer or winegrower could have considered themselves biotechnologists. This is not, however, what is meant now by the term. Biotechnology firms are in the business of creating and exploiting new forms of life, forms that are furnished by an applied science which is actually of very recent origin, namely, genetic engineering.

Genetic engineering: a bizarre combination of words. Genetics is the biological science which *Webster's Third New International Dictionary* defines as follows: "A branch of biology which deals with the heredity and variation of organisms and with the mechanisms by which these are effected." And engineering is "The science by which the properties of matter and the sources of energy in nature are made useful to man in structures, machines, and products." It is not long ago that these two rather distant activities coalesced to form a union, whether licit or illicit may be a matter of taste, so that the supplement to *Webster's Third, 6000 Words*, published in 1976, could offer a description of genetic engineering: "Alteration of hereditary defects by intervention in gene-controlled bodily processes and when practicable by directed changes in the genetic material."

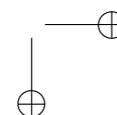
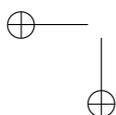
This is, perhaps, not the best of definitions, but it often happens in descriptions of new terms in dictionaries that they are outdated by the time they appear. The term "alteration of hereditary defects" is, however, significant since it stresses what I consider a misapprehension of nature. The inability of a bacillus to make a human protein is not a defect but a blessing. Living nature is built on diversity; one organism can do one thing and

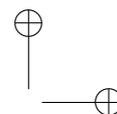
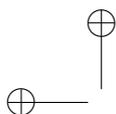




the other a different one. The minuses and the pluses compensate each other, as it were, contributing to a rather mysterious form of a homeostasis of nature with which man has been the only living being to interfere. Genetic engineering, even more than the splitting of the atom, threatens to be the culmination of such meddling. To me, at any rate, the exquisite balance of nature, which we ought to revere, is exemplified by birth and death, flowering and wilting, freezing and thawing, ebb tide and flood tide – in other words by all those innumerable ups and downs within which our world oscillates, to remain the same and to be ever new. When I went into science it was with the purpose, not of undoing, but of understanding what had been wrought by the ages.

Genetic engineering is essentially a sort of DNA transplantation in which a piece of a foreign DNA, carrying a certain gene function, is transferred to a host lacking that gene. If the operation succeeds, the modified host and its offspring are enabled to exert that newly acquired function. When right after the caesarean section through which the new science of genetic engineering was delivered, the first protests were heard, the defenders were quick to point out that such exchanges of genetic material have been going on in nature throughout the history of life. They were, however, more quick than correct, for theirs was a silly argument. Tribulations ordained by nature must be borne with greater humility than those handed out by Dr. B. or Dr. C., quite apart from the not inconsiderable differences in the time required for such interchange: millions of years as against a couple of days. If a fellow being, exclaiming that he too can be a volcano, erupts on your clothes, you are unlikely to

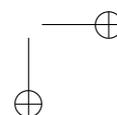
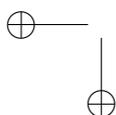


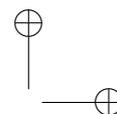
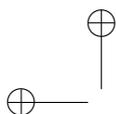


be as elated as in front of Mount Vesuvius. Molecular biologists, posing as forces of nature, are to me a very disagreeable spectacle. That so-called success legitimates any scientific intervention I have always been loath to accept.

By the way, I do not believe that there exists much evidence of an important role in nature of the exchange of genetic materials, perhaps with the exception of the prokaryotes (the bacteria and other primitive organisms). The dearest wish of each species obviously is to maintain itself unchanged, and cells contain many safeguards against alteration. "A balance that does not tremble cannot weigh" is, however, an old saying of mine; and, similarly, the balance maintained by a species is unlikely to be rigid: it will continually be assailed, and thereby tested, by the ups and downs of an oscillating universe. It is not impossible that intrinsic mutations of the DNA of a species and extrinsic transformations by additions of foreign DNA both form part of the trembling of the balance. The extent to which such processes participate in evolution cannot, however, be stated.

The steps leading to the isolation from a fragmented DNA preparation of what is optimistically called a gene and to the transplantation of the latter into a bacterial, plant, or animal cell are highly technical and need not concern us here. A cell thus supplemented will, under proper conditions, continue to synthesize the substance specified by the transplanted fragment of foreign DNA. The Creator of the universe will be interested to hear that in the words of the U.S. Supreme Court (June 16, 1980): "A live, human-made microorganism is patentable subject matter." He will regret that He Himself had omitted to

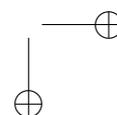
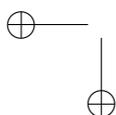


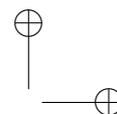
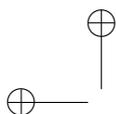


take out a general process patent in time. For strictly spoken, and who speaks more strictly than He?, what was “human-made” in the concoction? Not the recipient, not the vector, nor the donor or its DNA, only the meddling, the hybris.

The line of thought followed by the U.S. Supreme Court is clear: a living being is a machine; you introduce a new element into it and you have a novel machine that is patentable. After all, was there not at the fervid height of the Enlightenment in France a once famous book, *L’Homme machine*, published in 1748 by the physician La Mettrie? Let us, with terrierlike stubbornness, pursue the same line of thought a little further. We may propose, for instance, that some group of genetic engineers succeeds in introducing the genes necessary for the production of chlorophyll into a human being who, henceforth brilliantly green, is now able to assimilate carbon dioxide; or, less grotesquely, that a person is, by gene transplantation, rendered capable of making one of the essential amino acids, say, lysine or valine. Logic compels me to modify the judgment of the nine sages of Washington: “A live, human-made human being is patentable subject matter.” I can hear the merry chain gangs of patented men, owned by the multinationals which have financed the costly research.

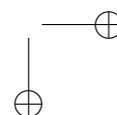
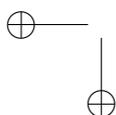
This is, of course, only a lighthearted divertissement, but I do think that a slightly profounder meditation on the fearful problem would have done the justices no harm. “Do first and think later” is not a good motto. Life now needs an advocate, and if neither religion nor jurisprudence can provide one, someone else will have to do it.

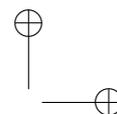
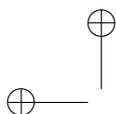




In science one must always distinguish between aims, pretensions, results, and consequences. The aim is proclaimed openly and officially: to learn the truth about nature. That this aim has been declared for several hundred years and continues to be so, shows how elusive or elastic truth about nature is. In some branches of science aims and pretensions coalesce. For instance, in cancer research the aim is to understand cancer and the pretension to cure it; both have so far more or less failed; the results were much more beneficial to other disciplines; for example, enzyme chemistry, than to the avowed purposes; and the consequences are ever more money for cancer research. In the long-established basic sciences, such as physics, but also chemistry, if one disregards the gruesome effects of some of its applications, the aims have remained as announced initially, and the pretensions are modest, if not intellectually, so practically.

Only medicine, if it is still a science and not a satellite of biotechnology, has at all times been shaking in all winds and weather. Is its aim still, as I believe it once was, to cure the curable and to make life and death as frictionless as human skill and knowledge can do? As I look at my colleagues, split into hundreds of mutually incompatible specialties, hooked to data retrieval networks or running after the newest breakthroughs announced in the advertising brochures of the pharmaceutical industry, I cannot help but wonder. In general, they still rely on the resilience of human bodies and the tolerance of their checkbooks. But the pretensions have changed and enlarged so enormously as to distort the function of the physician in our time. Of course, he is still unable to

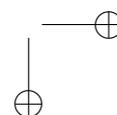
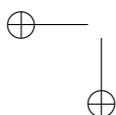


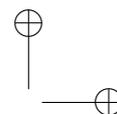
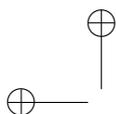


cure the incurable, but he can keep them half alive for a much longer and vastly more expensive period than ever before. In all hospitals of the world there lies Amfortas with the bleeding and never closing wound, and only after his life savings are gone and his cup of misery flows over will Dr. Parsifal come with the grail and release him to heaven.

I believe that the goal toward which a decent physician is striving has remained more or less unchanged, as stated before, but the pretensions of the entire profession, as sometimes announced by their spokesmen, have become confused and distorted owing to the influence of some of our sciences, which are now mechanized and technologized, as they never were before. In that respect, the ascendancy of genetic engineering has been particularly nefarious. It has, more by loud promises than by silent achievement, broken barriers which it would have been much better to leave intact. It has, for all sciences and for their applications, raised the level of moral entropy.

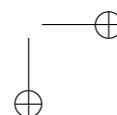
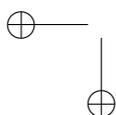
I ought to explain my position. The portion of nature that the scientist is able to explore is full of givens. One could, in fact, say that nature is one gigantic given that the human intellect is trying to understand; and it can only understand it by dividing it first. Thus, the chemist encounters the molecule and finally the atom, the biologist comes up before the hereditary devices provided by nature and finally before the gene pool through which each species inhabiting the living world maintains its identity. I consider the gene pool of mankind, which guarantees its indescribable variety within unity, as the greatest treasure that has come down to us through the ages. I am sure that if a thinking ant condescended

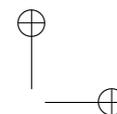
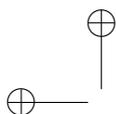




to talk to us it would affirm the same of the family of Formicidae, and so on. The brutal manipulation, by human hands, of the gene pool strikes me as an enormous sacrilege, comparable in dimension only to the splitting of the atom. That both had to occur in our time condemns our time.

How can somebody who spent his entire life in science commit so blatant a breach of professional etiquette as to protest openly against a direction that has elicited the most joyful approval of the vast majority of scientists? Softening of the brain or moral turpitude are the most obvious explanations; and those were indeed the reproaches that reached me when in the early days of genetic engineering – one spoke then of “recombinant DNA” – I expressed my doubts and objections. Nothing that has happened since has made me change my opinion. It has, however, rendered me more aware than I was before of the enormity of the shift in the type of researchers now going into the fashionable branches of science. There have been probably from the very beginning of scientific research, as we know it now, two principal groups of research people: those who wished to understand natural phenomena and those who wanted to explain and exploit them. As long as science offered little hope of material success, and not much more of intellectual attainment, it was bound to attract almost exclusively the first of these two types. They were often solitary thinkers, sensitive individualists, social misfits for whom the ivory tower functioned as an isolation cell. With the increasing capacity of scientific research to be made applicable, the distribution changed until around the middle of our century – with nuclear energy, the

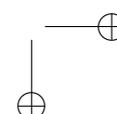
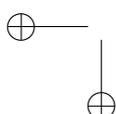


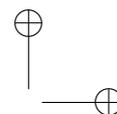
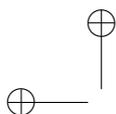


sputnik, the computer, and finally with genetic engineering – large portions of scientific research turned into technologies, into factories of scientific facts; facts that began to resemble inventions rather than discoveries. It is not surprising that the population attracted to these activities changed in character, nor is it an accident that at that time the center of gravity of science shifted to the United States. The scientific results, obtained by those novel approaches, are mostly based on a large array of most complicated appliances and are almost all highly indirect; they are shadows of shadows.

The exploitation of uranium splitting, the construction of the atom bomb were shrouded in complete darkness: the public only learned of the achievements when a hundred thousand corpses lay on the ground. The advent of genetic engineering took place before everybody's eyes. It was, not surprisingly, greeted by shouts of triumph. It was also greeted by a few warning voices. Although I was among the first of these, if not the first, I do not believe that I succeeded in making clear the essence of my apprehensions. The danger to the environment, the possibility of new forms of virulence being released, the irreversible pollution of the biosphere by man-made new forms of life were not my primary considerations, although the consequences of such assaults, unique in the history of the earth, ought not to be underestimated. What frightened me even more was the brutalization of scientific imagination, which arrogated to itself the right to manipulate and alter, in an irreversible fashion, the priceless inheritance of species specificity.

In the ancient, mythical times of the Old Testament, wherever a prophet stood, there was an abyss. But from

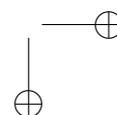
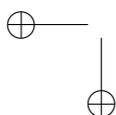


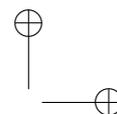
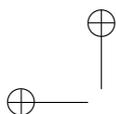


the edge where he stood, his voice could reach over the chasm and be heard by the multitudes. The caller in the desert is alone, only he and the sand and the stones can hear his voice. *Vox clamantis in deserto* thus becomes an image of black humor, of futile self-righteousness. “Who does he think he is? Writing a new decalogue? ‘Thou shalt not split the atom; thou shalt not mess with the genes; thou shalt not vivisect the dying; thou shalt not hire a woman’s uterus. . ..’”

Were anybody to continue this list of commandments, it would probably grow to much more than ten and end in proscribing nearly all triumphs of modern science and technology. That way lies madness, we are all agreed. We know that there never is a way back. When Rousseau preached the return to nature, that could be taken as a sign that nature had been abandoned by mankind irretrievably. All injunctions of this kind are really threnodies, lamentations about a lost state of innocence which may or may not have existed in ancient times. My guess is that it never did. Still, it is my impression that it was in our time that a giant leap occurred; a leap out of a precarious equilibrium which had prevailed, with its ups and downs, since the times of hominization.

It was science and its applications that made the leap possible, but it could not have taken place without a change in the moral climate of the world. “It was a sweet problem!” exclaimed Dr. O. about the atom bomb; it was very bitter for the inhabitants of Hiroshima. “It is a wonderful technique,” says Dr. W. of genetic engineering. Well, we shall have to wait for the answer: the biosphere is still counting the votes.



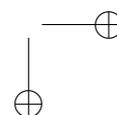
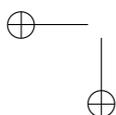


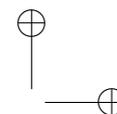
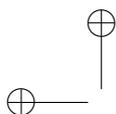
What I have called the change in the moral climate is 1) that the majority seem to agree that what can be done must be done; and 2) that they appear to accept the silly old saying that to understand all is to pardon all. Arguments of makability and explicability have never before been as persuasive as they are now; they have abolished the concept of sin and of guilt. And if, on top of it, you say you are searching for the truth, how can you go wrong? The categorical imperative of doability is, of course, not correct; most of what can be done ought not to be done. The criminal codes of all nations still are despairing reminders of what used to be accepted in all civilizations. But can truth-seekers be evildoers? Unfortunately, they can.

In Hegel's *Philosophy of Right* there occurs, near the beginning, a famous statement which the great philosopher considered so important that he had it printed as if it were in verse:

What is reasonable is real;
and what is real is reasonable.

I have no license to disagree (one now needs a diploma in order to think) and I say it in all humility, but the celebrated saying has always struck me as silly. It would be correct only if it were tautological, reasonableness being the sole attribute of isness. There are, however, many things that exist and yet are unreasonable. The attempt to destroy an entire people is certainly unreasonable, but it occurred recently. There is nothing more insane than wars. Who can deny their reality? (Had I translated Hegel's *vernünftig* with "rational" rather than "reasonable," I do not think that it would have

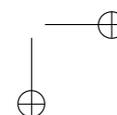
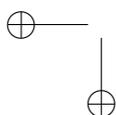


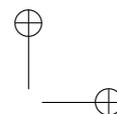
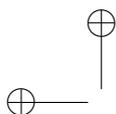


made much difference.) Although science is about the most undialectical of all activities – thesis, antithesis, and synthesis being all thrown out together every five years – the saying of Hegel that I have quoted before has had, I believe, a great influence on the post-factum rationalization of all that scientists do.

In any event, I do not deny that genetic engineering made its appearance at the right moment, namely when there occurred a drastic change, to be mentioned presently, in what the people expected of their doctors. Those changing attitudes agree with a thought that has often occurred to me when thinking about science and society. A new technology creates desires that only additional scientific research can fulfill. Under circumstances even new scientific disciplines may thus be created which in turn give rise to new technologies, and so on back and forth.

In the good (or bad) old days, when most people believed in Providence and even the infidels in Fate, they lived and died very much as they do now, although the average life span was much shorter than it is at present. If they could afford physicians, the lower classes and women of all classes died young, but among the prosperous, especially males, one finds a surprisingly large number of very old people, for the medical profession of the day, with its bloodlettings, purgatives, and emetics, selected for toughness. What will strike a reader of such remarkable books as the correspondence of the Marquise de Sévigné (who died at seventy) or the memoirs of the Duc de Saint-Simon (who died at eighty) is the composure, the serenity with which fate was borne, and not only that of others. They expected little of their

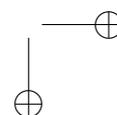
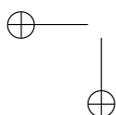


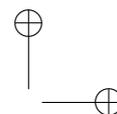
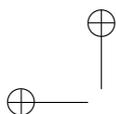


physicians and got even less. In the much later accounts of Tolstoi, depicting episodes in the Crimean War, the marvelous *Sebastopol Tales*, what stands out is again the stoicism toward the brutal medicine of the day.

Our medicine is perhaps no less brutal, but more scientific. The attitude of the people who have now been all made into patients is, however, very different. They are restless patients, expecting their physicians to do the impossible, to abolish, magically, human destiny, to postpone death to a dim and distant future. In these expectations, born of misery and terror, they are, unfortunately, encouraged by the mass media, but also by a less worthy portion of the profession itself, by quite a few physicians and biologists. In the past, out of the trembling of fearful prayers there came sometimes redemption; now it is only exploitation.

As the pretensions of the public grow, science is ever more willing to accommodate them, the more so since all those hopes were first raised by scientists. All sorts of genetic diseases, malformations, mental retardation, misfunctions of organs, infertility, metabolic diseases, cancer, and whatever else you can imagine will be taken care of. Just give them a little time and a lot more money. Almost every affliction one can think of is now represented by a separate foundation, with a paid staff, asking for donations. It is not clear whether the funds solicited are used to maintain or to wipe out the particular disease. Much vaster sums, perhaps more closely controlled, are of course spent by federal sources. I may be obdurate, but I cannot say that the people have benefited greatly from the huge funds spent on what is called biomedical research. There are countries spending much less that



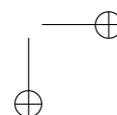
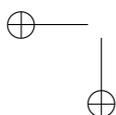


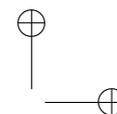
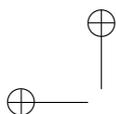
enjoy a higher standard of health than the United States. On the other hand, scientific research or what goes by the name of the biomedical research community, has profited enormously. Many more scientific papers are published than before; but as the half-life of a publication now is less than three years, this gain may be illusory. It is as if many people were hired to push forward the frontier of a country whose map has been lost.

Of all activities called biomedical, genetic engineering is the most representative, for it has set out not only to alleviate human destiny, but also to improve and supplement nature, to create new forms of life that nature had not brought forth heretofore. It is the meddling with the gene pool, the irreversible contamination of the biosphere, accepted without protest by the majority of the public that, in my opinion, has contributed to the lifting of all restraints on what physicians and biologists dare undertake. Experiments on human embryos, unthinkable only a few years ago, are now performed routinely. Transplantations of artificial organs have become technicolor spectacles. The inconceivable mystery of life is being fingered by most unworthy hands, and the only protests I hear come from the competition that has been outshored.

For instance, according to a recent news report from Tokyo,

A group composed largely of Tokyo University Hospital doctors asked the Public Prosecutor's Office to charge a Tsukuba University group of three doctors with murder for their part in an operation performed last year. In September, the Tsukuba group had operated on a 43-year old woman who had collapsed from a stroke. All signs of brain electrical activity had ceased

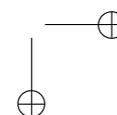
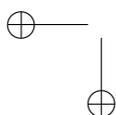


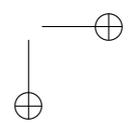
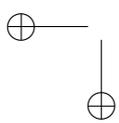
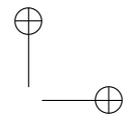
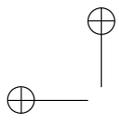


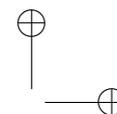
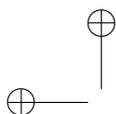
when the decision was made by the three doctors. . . . to remove kidneys, pancreas and liver from the woman for a transplant operation. At the time, the woman's heart was still beating. (Quoted in *Nature*, February 21, 1985, p. 613.)

Whether the biomedical butcher shop still functions I do not know, nor do I know whether such a protest could even be heard or become public in the United States. And let us be progressive: what difference does it make if in their Shinto temples the Japanese people will from now on revere the spirits of eviscerated ancestors, as long as science advances?

But to me, considering what has become of science in my time, it appears that the approaching twenty-first century throws a long and dismal shadow. "By the fruits ye shall know them"? As to fruits, there may not be many, and they rot easily. What makes me afraid is the gleam in the eyes of the scientist, sure of his legitimacy.



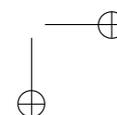
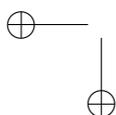


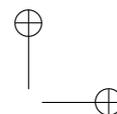
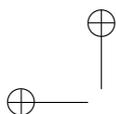


III

HOLOCAUST

The unspeakable cannot be spoken of, not even when it is sanitized, deodorized by being given an inapplicable Greek name. How can the burnt offerings, fervent sacrifices of an ancient nomad people in the desert, how can those be assimilated to what happened in our century? To what God were the millions of Jews, Gypsies, communists, insane, homosexuals sacrificed? Did He accept the offering? Were the vapors succulent? Was there an answering voice from heaven? And the Armenians, the Cambodians, the nameless multitudes who fell victim to the evil in Man, are they excluded from the linguistic whitewash? Language is the good and the bad conscience of humanity. If it lacks a word for such mega-massacres, it places an interdict on the deed. The act lies outside of the community of men; giving it a name means admitting it to vocabular society: nonce words become words; linguistic singularities become habits. *Holocaust* is now what the German language (properly enough the German language!) calls *salonfähig*, “accepted in polite society.” There are Professors of Holocaust Studies, and surely soon entire university departments. Something like the “Archives for the Study of the Holocaust and Related Massacres” will print learned papers. Soon there will be a “Holocaust Society,” and eventually the “Holocaust



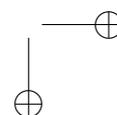
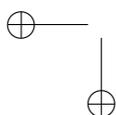


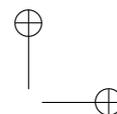
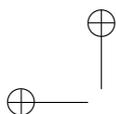
Ball” in support of scholarships. Science is self-renewing and never runs out of material. Many happy returns!

My dislike and fear of cover-up terms, which also extends to the word *genocide*, has deeper origins. It has to do with my impression that the statistification (I do not believe there is such a word, but there ought to be) of our world has dehumanized it. We think in curves and histograms, putting a lifeless and colorless screen on what is blood and flesh. We conduct huge campaigns for the annihilation of life and call them pest control; we spray entire countries, killing man and beast and plant, and call it insurgent control. War is called defense and a bomb the peacemaker.

The ghastly history of the world is dotted with mass killings, pogroms, retributions. The bloody frenzy of the peasant wars, the Thirty Years’ War made room for the cool and virtuous selectivity of the French Revolution. The incredibly cruel repression of the Paris Commune was perhaps a return to older customs, but some enormous misdeeds, for instance, the extermination of the American Indian, seem to have been noiseless historically, even if accompanied by resonant gospel hymns. Finally, a very thin membrane of civilization seemed to grow over, and hold back, the normal bestiality of man, although the human kindness of such peoples as the Italians or the Danes offered a better protection.

Our century apparently found it possible to return to ancient and venerable traditions, those of a Genghis Khan or Timur Lenk. The entry of the Russian word *pogrom* into the Western languages signaled a change in atmosphere, and I assume that there is also a nice Turkish word for the slaughter of the Armenian people.

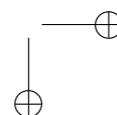
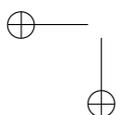


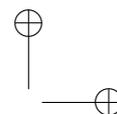
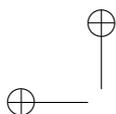


But all that is really not a question of nomenclature: even without the specialist appellation of “Final Solution,” everybody knew exactly what was meant. And what was meant was to persuade a nation (it did not, I am afraid, require much persuasion) that an entire people or race or clan was a pest, a *Schädling*, that had to be exterminated. Not the annihilation itself, but the orderliness, the well-oiled, carefully compartmentalized mechanics with which it was performed; the prudence with which the civic virtues of an old culture knew how to stifle even the squeaks of the abattoir: all this combined to make this event – the crowning achievement of a century that at that time had not even reached its halfway point – to make it truly unique in human history. Once you succeed in converting people into beetles, you may proceed scientifically, in strict order and with all the refinements of the exterminator’s art, and the little flags on the maps at headquarters will indicate not victories, but extermination camps.

It is not easy to be the first in history. It means overcoming an incredibly heavy weight of conventional taboos, of traditions whose origin has often been forgotten. Once the ice or in this case, perhaps, the frozen blood has been broken, everything becomes easier, and unique does not stay unique for long. That is the consolation that the believer in human progress sucks out of the bitterest honey.

In the meantime, however, the conferral of a stylish designation works its semiotic mischief. The direct victims of the Holocaust can hardly form an association, except in the air where the gas molecules recognize each other; but I am sure such societies exist and they have

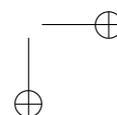
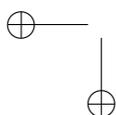


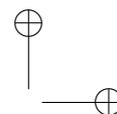
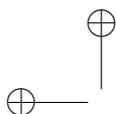


badges and collect a fee. There will always be people, and not only the undertakers, who make a living out of the dead. And then there are associations of the children of the victims of the Holocaust; no doubt the grandchildren will later also wish not to be forgotten, and so on. The world, becoming one huge Kiwanis Club, will always find ways to fill its emptiness.

No flowers will ever grow on these tombs, for the objects of a negative fabrication remain unburied in air and wind. But even in this form they can become tourist attractions. Museums are erected and monuments where empty-headed statesmen read hypocritical speeches. There are celebrations and marches, orgies of insincerity; they all beat each other's breasts, for the question of guilt is posed wrongly. All guilt is collective, no one is innocent. Only in the fire of one's own heart can one condemn oneself, can one redeem oneself.

"Neither angel nor beast" – that is what Pascal called Man. But he omitted the Devil, and the formula could read "either man or devil." The diabolization of man is the outstanding characteristic of our time. Only under this aspect can moral philosophy weigh the questions of guilt and responsibility. Are six million murders worse than one? How can one answer such a question except by a sort of moral arithmetic? In one murder only one soul, that of the murderer, is lost; in the Final Solution tens of thousands of murderers must have been directly involved, and they all lost their souls. But in hearing the objection "Most of those merely pushed their innocent papers, they were not murderers, they followed orders," I am faced with another characteristic of our time: too many spiderwebs, too many spiders, not

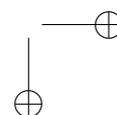
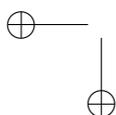


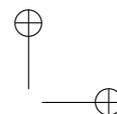
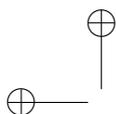


even one fly per spider. Divided responsibility becomes innocence, not even a monomolecular layer of guilt per soul. That is the Devil's trick: he has a devilishly good conscience. Wherever his eyes fall, there arise little devils by spontaneous generation, as it were. One could consider that as another triumph of what I have called statistification.

My primitive form of moral arithmetic can be applied to another triumph, this time a triumph of pure science: the atom bomb. Nobody to my knowledge speaks of Hiroshima as a holocaust, maybe the Japanese have no word for it. But one hundred thousand dead at one time is a respectable achievement, and no doubt we could do much better now. From the generals' point of view there is no problem: an available weapon put to work against a civilian population, as had been done innumerable times before. But then, splitting of the atom was truly a triumph of experimental physics if ever there was. So, if we want to divide 100,000 by x , who goes into that x ? Newton, Einstein, Hahn, Fermi? Their numerous collaborators? All of physics and mathematics? Or merely the few poor devils who flew the planes and threw the bombs? Certainly these least of all, but otherwise I have no answer; or, better, I have no usable answer. *Sauve qui peut!* is not very elegant advice, but if there is not enough sand for the ostrich to stick its head in, it must take to its heels.

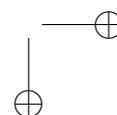
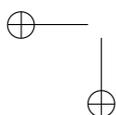
The spectacles that are being spread before us – politics, economy, science, culture, leisure – all take place in the foreground. Their agents are actors, some more gifted, some less, but they are all playing roles, far away from reality to which they claim allegiance. They are

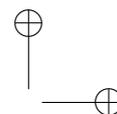
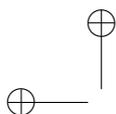




made up to look complete, but are really one-dimensional, as Herbert Marcuse recognized a long time ago. There is, however, a background to the scene, which is completely invisible to us; there are also occasional trapdoors into nether regions of which even our dreams have stopped informing us. Music, art, poetry used to be detours around this makeshift, make-believe front world; they are now blocked or impassable. The marionettes in the foreground have always been cutting up each other, but the background has never before been as opaque as it is now. Still, the foreground, even if lit up with all the brilliance that science can provide, is nothing without the darkness behind it. Our eyes have lost the indispensable dark adaptation. We are blind from too much light.

As I have just spoken of science, I ought to remark that the mass killings perpetrated by National Socialist Germany were unique also in another respect: they were based on what was claimed as scientific knowledge, whether rightly understood or misapplied is beside the point, and they made use of achievements of the chemical industry as regards pest control and fumigation with *Blaukreuz* gas. The degradation of the Jews, the Gypsies, and others to the status of cockroaches was facilitated, or even provoked, by the dominant race theories and the efforts of eugenics. The concept of superior and inferior races was seriously and hotly debated even in America, when I first came here in 1928, in connection with the then relatively new immigration law. A few years later, in 1933, when I got to see such publications as the *Völkischer Beobachter* and *Der Stürmer*, National Socialism appeared to me, among many other things, as the greatest scientific confidence game in history. The

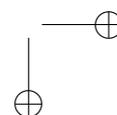
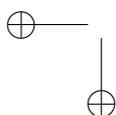


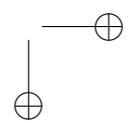
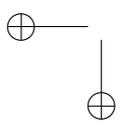
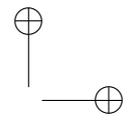
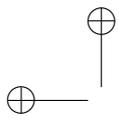


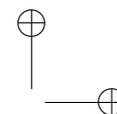
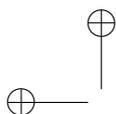
power of recollection now being in short supply, I wonder how many people still realize the extent to which the Nazi bestialities were the outgrowth of the same kind of mechanistic thinking about nature that in other forms led to what many will consider as triumphs of science.

One other point struck me as a direct or indirect observer. I should like to refer to it as the dialectics of humiliation: as persecution proceeds, the victim becomes ever more similar to the image that the torturer holds of him or her. It is as if the scurrilous caricature became engraved mechanically on the real features. It seemed to me a variation on a theme treated by Franz Kafka, the Dante of our Inferno, in his tale *In the Penal Settlement*. Incidentally, another of Kafka's texts, *Metamorphosis*, may be read as a prophetic account of how it feels to become a cockroach. Did he foresee that in a few years' time that would become the fate also of his sisters?

So much misery, so much unspeakable misery, and now I come and say we should not give it a name. I believe the unspeakable ought to remain unnameable; not in order to make it easy to forget – quite the contrary. When the leaves tremble in the wind, let us believe that these are our mothers and our fathers whose wasted and burned souls try to touch the children whom they had missed in their hour of need. *Requies aeterna* is deeper when buried in a single heart.





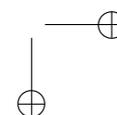
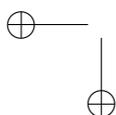


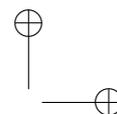
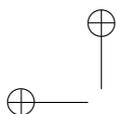
II

IMPERIALISM

Some time ago I read a speech given by a French minister of culture in which he accused the United States of “cultural imperialism.” I wonder whether there really is such a thing. There is, however, Gresham’s law about bad money driving out the good. It is true, people are different from horses: whereas the wisdom of the ages, more experienced in these matters than I am, assures me that a man can lead a horse to the water, but he cannot make him drink, I am convinced that with men you can do both. To that purpose we have advertising and the other arts of vigorous persuasion. The trouble with horses is that they cannot read, and as for hearing, they only hear what they want. But given a suitable budget, a few melodious jingles, and a couple of actors on the screen indulging in that refreshment, I am sure you could make people drink urine. Only I doubt that there is money in that enterprise, otherwise we already should have had Amuco (the American Urine Company).

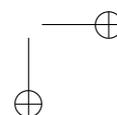
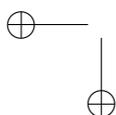
If in the past a law operated in the fields of culture and learning, it was not always that of Gresham. When in late Renaissance Italy the first academies arose, the Accademia della Crusca, the Accademia dei Lincei, they were soon imitated in other countries. But that certainly did not come about because the Medicis or some *principe* or *duca* got together with their advisers and said “Let’s

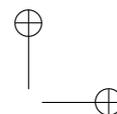
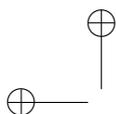




spend some money on cultural propaganda in France or England.” They were much too smart for that. “Propaganda” is a word of the Counter-Reformation, and the first propagandists sat in the Vatican. But culture, too, is catching, and so the Académie Française, the Académie des Sciences, the Royal Society, the Leopoldina were founded in the seventeenth century, followed later by many others.

Originally, when scholars or scientists wished to make known their discoveries or inventions, they did so in form of letters to their colleagues; if they had much to say they published a book. The appearance of the first scholarly journals, toward the end of the seventeenth century, gave rise to a host of others, first of a general nature, but soon increasingly specialized. The success of *The Spectator* by Joseph Addison and Richard Steele spurred the publication of similar periodicals in nearly all countries of Europe. To a certain extent, civilization is contagious, and the various forms of imitation which I have mentioned can hardly be blamed on imperialism. On the other hand, the desire of every princeling to build his own Versailles, not to speak of enjoying his own Madame de Pompadour, had certainly to do with the might and prestige of France, a prestige, however, for which the excellence of its writers and artists was at least as responsible as that of its army. At the time when French was spoken everywhere, when it was the language of the educated world, no “Voice of France” radio station was required, nor could a budget item for cultural propaganda even have been thought of. Mozart or Lessing could write a letter in French as well as Horace Walpole or Thomas Jefferson. The secret, not so

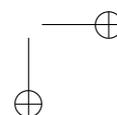
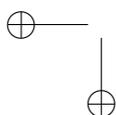


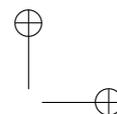
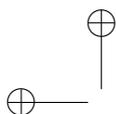


secret, weapons of French “cultural imperialism” were called Voltaire, Diderot, Rousseau, Watteau, Fragonard, Rameau, and so on.

Those were the last years of a functioning cultural community. Everybody with any pretension to education could read and write Latin and French. But with the French Revolution, with the creation of mass armies, with capitalism and industrialism, with the romantic movement and the rise of nationalism, patriotism, chauvinism, a fragmentation took place which it has never been possible to reverse again. I should have included imperialism in my list, but I hesitated, for imperialism is a fluorescing word or, better, it is a mirror word reflecting its user. It is a word of the last century when circumspect men, spectacled and bearded and with a great power of circular reasoning, drawing meticulous, though contradictory, conclusions from insufficient premises, laid the foundation of our ruin.

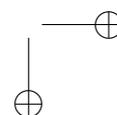
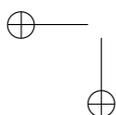
There is a silly saying by Lord Rosebery (1899): “Sane imperialism is a larger patriotism.” *Sane* is one of those sanitizing words (*moderate* is another) that can be attached to the most awful atrocities. When the colonized people, out of sheer lack of British patriotism, objected, insanely, to being compressed into the crazy quilt of merciless exploitation, it was certainly sane to shoot them. *Imperialism*, the colonization of people by military or commercial might, is not the only word with which to slander an adversary. *Hegemony*, for instance, has now become a Chinese word, describing those imperialist powers with which the People’s Republic of China is on bad terms. These things change with the weather and a vulture can become a nightingale overnight.

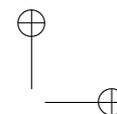
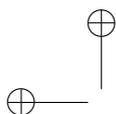




There exists, of course, an enormous literature on Imperialism. How could it be otherwise in our time, when academic tenure has become related etymologically to the ability to hold a pen and lately a tape recorder? Before World War One socialist thinkers, among them Lenin, Otto Bauer, Hilferding, had spent much effort on defining that phenomenon as the armed branch, as it were, of Capitalism. With the advent of socialist powers the early definitions lost much of their sharpness, and we now hear a lot about “Soviet Imperialism,” a term that to me still sounds like a *contradictio in adjecto*. It would, however, seem that, man being noble only when he is out of luck, those that can, are imperialists, those that can’t, write about it. Not long ago, the pitiable affair of the Falkland Islands showed that vain dreams of past imperial glory fade only very slowly. It was one more demonstration of how correct the young Karl Marx, Hegel’s best pupil, was when he wrote in “The Eighteenth Brumaire of Louis Bonaparte”: “Hegel remarks somewhere that all great historical facts and persons occur twice, as it were. He forgot to add: once as tragedy, the second time as farce.”

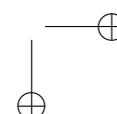
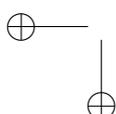
If a situation has changed and we get the impression that the terms used to describe it no longer fit, we often equip them with a suitable prefix, such as *neo-* or *post-*. *Neocolonialism*, instead of *Imperialism*, is such a word and it means, to use a Webster definition, “the economic and political policies by which a Great Power indirectly maintains or extends its influence over other areas or people.” The reproach of cultural imperialism seems, therefore, to imply that America attempts to extend its cultural influence indirectly. Before deciding whether the

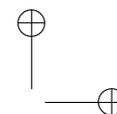
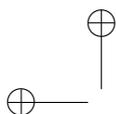




stricture is justified, we ought to decide what is meant by *culture*. In his excellent book *Keywords*, Raymond Williams rightly states that word to be one of the two or three most complicated words in the English language: In its narrowest definition, culture would seem to comprehend literature, painting and sculpture, music, theater, film. But that seems too restricted for our time: I should certainly add higher education, scholarship, scientific research, and still something that may seem surprising, namely, the maintenance of the national language at the highest possible level of expressiveness. For me, a people taking care of their words comes right after the one caring about their trees and their children. I would certainly not include, in the definition of culture, the mass media nor the other industries of manipulation and entertainment.

Before you can export something, you have got to have it. Does America possess the kind of culture that it can impose on others by whatever direct or indirect means? I am inclined to deny that, although I must admit that it is childish to assume that it is owing to their superior quality that goods can be exported. Imperialists often work against a quality gradient, as long as their weapons are better. When the French minister of culture looks and listens around Paris, what does he see and hear? He sees “Le Drugstore,” a ridiculous super-chic persiflage of an American drugstore that never was; he sees young people in jeans or dungarees and they dance to Americanoid music, imbibing a dark and sweet beverage of cloying taste; he sees the city disfigured by ugly skyscrapers; he sees the movie theaters inundated by the crude and brutal products of Hollywood and the television screens overrun

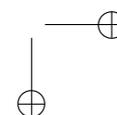
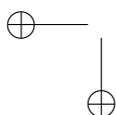


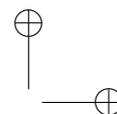
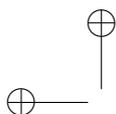


by glaring, shrill, idiotic serials of similar provenance; he hears his language, perhaps the noblest that the mind of man has invented, matted down and tangled by indigestible scraps of a foreign tongue. All that may be imperialism, but I doubt that it is cultural. As I suggested at the beginning of this essay, I believe it is Gresham's law operating.

There is one more thing. It is my impression that for a very long time there has been functioning a downward gradient of inferiority feelings going from East to West. It almost looks as if each country were ashamed of its own bedbugs and admired those of its western neighbor. When I was a child in Vienna everything coming from France and England was an object of admiration and envy, whereas Vienna itself again was the focus of adoration for the Poles, Hungarians, Romanians. In that respect, westernmost America formed the ultimate target of uninformed sympathy; a goodwill that I believe it has more or less lost in the last thirty years.

In any event, imperialism or not, I do not see that America now has much to offer in what goes by the name of culture. That must not be taken to mean that the situation is better in other countries. Writing, as far as I can see, is everywhere of a low quality or so hermetic and private as to make it impossible for the reader to decide whether it contains anything of value. Music and the fine arts are in a similar position; only the film and, possibly, dancing may make an exception. Yet, going back a mere sixty years, say, to the year 1923, we should find an entirely different aspect, with great poets, writers, painters, sculptors, composers still functioning. To give lists would be tedious, but it is an easy experiment to

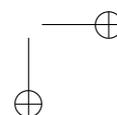
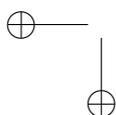


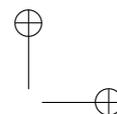
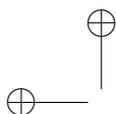


make. Even at that time, America had little part in the spectrum of culture, with the one great exception, jazz music, for which it has to thank its black population.

There remain, as possible agents of cultural imperialism, scholarship and science. Those are now entirely in the hands of experts, having been turned into the principal products of the knowledge industry. That means that they have lost the public, to which their interests and achievements have become totally impenetrable. Since the major part of all knowledge producers operate in America and write in a language related, loosely, to English, the American variety of that language has, in its partly spontaneous, partly promoted expansion, indeed become an element, perhaps the only one, of cultural imperialism. If for no other reason, because of the unwillingness, or inability, of Americans to learn other languages, the rest of the world has been forced into a sort of pidgin, impoverishing itself and all others. Here, too, I see Gresham's law operating.

Slogans, not cultural achievements, remain the most potent vehicles of an imperialism that I should hesitate to call cultural. The American Way of Life has proved a slogan of enormous penetrating power. Nobody I know has ever lived that life. It exists, however, in the multicolored brochures of real estate agents and on the screens of movies and television. Having lived most of my life in New York City and having watched its decline and fall, I have never understood why the agents of Soviet propaganda do not conduct tours for their citizens through the subways of New York, through the South Bronx, through the Bedford-Stuyvesant section of Brooklyn. That this question of mine is naive I know

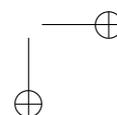
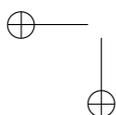


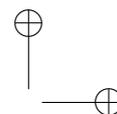
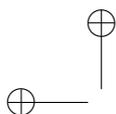


myself: many participants of such conducted tours would defect. What appears to me as a wretched corral on wheels, would seem to them the grail of freedom.

With that word, *freedom*, I have mentioned the most powerful slogan, for it appeals equally to William Tell and to XX. (For XX I beg you to insert the most avaricious usurer, the most hard-hearted and unscrupulous oppressor and exploiter, the greediest crook you can think of.) That word has right off one great merit: it possesses a double; a valuable advantage when debts become due. *Freedom, liberty*: two words as similar to, as subtly different from, each other as Mr. and Mrs. Hedgehog. One of the two is bound to win the race, even without moving a leg. When President Carter pumped so much hot air into “civil liberties” that they rose higher than any balloon in the Macy’s Thanksgiving Day parade, could he have done the same with “civil freedoms”? I doubt it; as these ideals sound to me, liberty is only the appearance of freedom. Liberty is a statistical concept; freedom is what the individual strives for, and mostly in vain.

Be that as it may, the power of such slogans comes from their enormous myth-forming ability. It is as a purveyor of unrealizable dreams that America fulfills its destiny of mock liberation. The greatest danger for this sort of imperialism is that it be taken at its word. Our world would collapse if several billions of the oppressed and offended were to believe the pseudotruths that are being drummed into them day and night. It would then be too late to assert that nobody believed anyway what he had told the others.



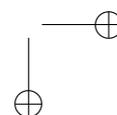
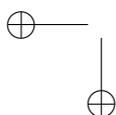


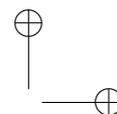
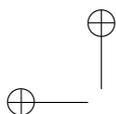
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JEWISH SELF-HATRED AND OTHER IDIOT WORDS

Words often stand for concepts, but sometimes they stand for their lack. Someone would like to speak out; he does not know what to say; he bumbles. As he is no brook, but only an idiot in high places, what comes out of him are idiot words. The more baseless and empty they are, the faster will they be picked up by the “media” and become the people’s voice. (“People’s voice” is, of course, itself an idiot word; a people has no voice: collectives are mute.) I have gathered a few examples, unsystematically and only for my own use, like a boy playing on the seashore and now and then finding a smoother pebble or a prettier shell than ordinary. I am sure that when Isaac Newton described his own work in those terms someone remarked that Mr. Newton lacked gravity.

Jewish Self-Hatred. When Hölderlin or Nietzsche spoke of their fellow Germans in quite abusive terms, criticizing them bitterly; when Stendhal compared the French with the Italians, much to the disadvantage of his own people; when Gogol or Goncharov painted Russian society in far from flattering terms; when Dante could find standing room only for the Italians of his Hell – who would speak of German, French, Russian or Italian self-hatred? In what way does one, in criticizing one’s fellow citizens or





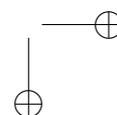
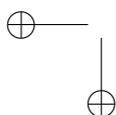
the nation to which one belongs, exhibit hatred toward oneself? And, for that matter, does hatred always annul the validity of its grievance? A Greek, asserting that all Greeks lie, may for once have spoken the truth.

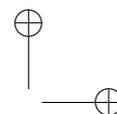
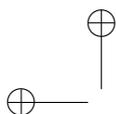
Incidentally, global statements like “Greeks are liars” or “Americans are crooks” make as much sense as the old statement “Jews stink,” which found its portentous expression in the ancient catchword “foetor Iudaicus,” an accusation demonstrating how foreign the Jews were during most of their long history and how poor. To the rich the poor have always stunk, and the Ones always stopped their noses when meeting the Others.*

Still, how often have I encountered the stupid accusation of Jewish self-hatred when, for instance, certain actions of the state of Israel are being criticized by a Jew. Any stricture, justified and even lofty as it may be, seems immediately invalidated by that lazy explanation whose origin I would locate in the region where Freud rhymes with Fraud. I did a little investigating and, sure enough, I came upon something where place and time fitted: Vienna in 1903.

Otto Weininger (1880–1903), a brilliant young philosopher and a suitably deranged genius, published his amazing work *Geschlecht und Charakter* (Sex and Character) in that year and in that city. The thirteenth chapter of the book carries the title “Judaism”; it represents a passionate paean to anti-Semitism, made even more remarkable by its being written by a Jew, as the author himself points out in a footnote. I quote a few sentences:

*It is not accidental that J. P. Sartre, the man who recognized that Hell was the Others, wrote one of the few adequate philosophical studies of anti-Semitism.





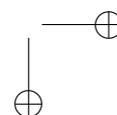
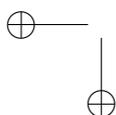
An aggressive anti-Semite will always exhibit certain Jewish properties; that will sometimes even be expressed in his physiognomy though his blood be free of all Jewish admixtures. Just as one loves in the other what one would himself like to be, but never entirely is, so one hates in the other only that which one never wants to be and yet still is in part. This explains why the severest anti-Semites are found among the Jews. . . . Whoever hates the Jewish character, hates it first in himself. . . . One only hates what reminds one unpleasantly of oneself.

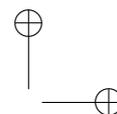
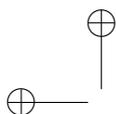
How different, how painful such sentences read now in the bleak light thrown by the boilers of Treblinka or Auschwitz. Weininger killed himself at twenty-three, in the year in which his book was published. Had he lived to be over sixty, he could have been seen entering the portals of one of those terminal places, on his lips perhaps a ditty from a Wagner opera, for he was an enthusiastic admirer of the unpleasant composer.

That is where, I believe, Jewish self-hatred as a slogan originated, although the manner in which Weininger introduced it is far from idiotic. The word *self-hatred* itself comes, I think, from the German *Selbsthass*, which is first documented in the seventeenth century. Goethe used it referring to Lord Byron, but Jean Paul doubted that such a thing as self-hatred could exist.

Self-appointed. I read in the magazine *Science*: “Meanwhile XY, the President’s science adviser, has lashed back at U.S. critics of the President’s plans. XY. . . told the Electronic Industries Association. . . that the criticism came from ‘self-appointed spokesmen’ . . .”

Jesus Christ was self-appointed; Pilate was not. Pilate had been recommended, not unlike Dr. XY, by some very rich contributors to the emperor’s campaign funds.



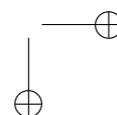
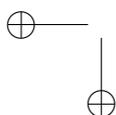


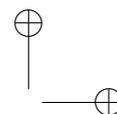
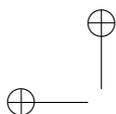
Would he make a good procurator of Judaea? Who cared? He was duly appointed. Voltaire, Rousseau, Diderot were self-appointed. Not so the ministerial bootlickers who governed France in their time; those had been recommended for appointment by the king's cronies. Karl Marx was self-appointed; the professors who later claimed to have shown him wrong had to wait for tenure. Thomas Jefferson was self-appointed; Ronald Reagan was not.

Nothing admirable in the world has been done except by way of self-appointment. If the Rand Corporation had been commissioned to design the Gospels they, too, would sound like the president's speeches written for him by appointed toadies.

Self-confessed. The dictionary supplies a quotation: "a self-confessed intellectual." Who else could have confessed for him? Did he have to be tortured before he confessed himself an intellectual? Or do we need a Public Confessor who would do the confessing for everybody? There are reasons why lawyers and journalists like to devalue an adjective or a noun by prefixing it with self: the *Agnus Diaboli*, which adds to the sins of the world, has assured them that all motives making an individual speak out or act are suspect and even dirty.

Consensus. Following a costly saturation campaign in the media to sell a certain soap powder, lipstick, or, for that matter, president of the country, one assumes that a consensus concerning that merchandise has been established. If then in a nation of 250 million, 600 people out of 800 questioned say that this is the best soap powder, lipstick, or president, the existence of a consensus

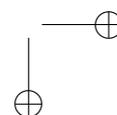
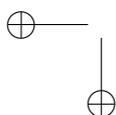


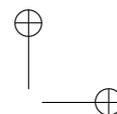
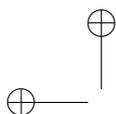


has been proved “scientifically,” as people like to say. Consensus seems, hence, to be the crowning of another concept, Public Opinion, whose venerable age makes one forget that it, too, is an idiot word. But, whereas “Public Opinion” leaves open how many different, and even opposite, views it comprehends, “Consensus” is a vectorial expression: it declares the identity of views. It is a dangerous word because it is used to conceal the lack of democracy in a democracy.

Controversial. Opinions that are said to offend the myth of consensus are controversial. The initially unobjectionable designation of disputable matter has been misused by the press to tar, indelibly, anybody who dared open his mouth or stick his neck out. In its present perverse use it would apply equally to Jesus Christ and Adolf Hitler.

Refusenik. I was surprised to find that *Webster’s Third New International Dictionary* conferred citizenship on the Yiddish word *nudnik*. Since with pest, nuisance, and bore the synonymic requirements of the English language seem covered, the reason of the additional enrichment is not quite clear. But never mind, let a hundred flowers bloom. One of the first was the unnecessary *beatnik* and later came *refusenik*. Since the Russian suffix *-nik* specifies a person professionally connected with the indicated activity, the *refusenik* presumably makes a business of being refused an exit visa from USSR. This is not, however, what the users of the idiot word have in mind. It serves as a weapon in the Cold War. The



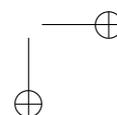
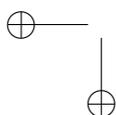


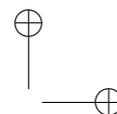
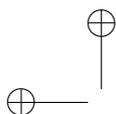
enemy is not only evil, he also speaks a funny language which can be used easily for comic effect.*

Information Explosion. The more there is to know, the more ignorant the individual must remain, for the capacity even of the eagerest polymath is limited. The explosion, however, that is now put forward as a lazy excuse has little to do with what a person could place in his memory. The information in question does not instruct anyone in particular; it is scientific information, not to be known, but to be stored in a machine or, at the most, in journals. It is knowledge produced to be superseded almost immediately. What remains is an aroma of an extreme busyness on the way to becoming a business, but the knowledge itself is born obsolete.

Postmodern. In the essay, Knowledge Industry, immediately following the present one, I comment on one of the linguistic and conceptual maladies of our time which consists in characterizing its various tendencies with the use of the prefix *post-*: *postindustrial*, *postideological*, and so forth. One of the silliest of these vocabular neoplasms is the word *postmodern*. I encounter it with increasing frequency in art and literary criticism.

*That the language is not only funny but also weird may be gathered from President Reagan's recent assertion that the Russian language even lacked a word for *freedom*. The Manhattan telephone directory includes, however, five entries with the name of *Svoboda* which, according to my dictionary, is Russian for "freedom" or "liberty." People who gossip flightily and frivolously about languages of which they cannot even read the alphabet could be called *libbertigibbets*.

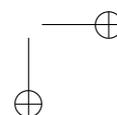
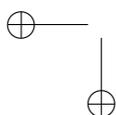


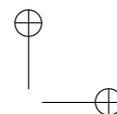
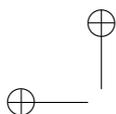


Each historical period follows, of course, the preceding one: reaction was postrevolutionary, liberalism was postreactionary. We now live in a form of postdemocracy that has not yet received a name. (Were I to call our time panic and circensian, I should be making one of those forbidden puns; but do we not really live in a circus at which we glance in extreme fright?) In any event, in all those formations *post-* indicates a temporal or causal succession. But would such a word as “post-present” make any sense? Would it not mean that we call present what really is the recent past?

This objection applies equally to the word I am discussing here. The late Latin word *modernus* (sixth century) is derived from the Latin adverb *modo* meaning “just now”; and when the expression spread into all European languages during the fourteenth to sixteenth centuries, that was exactly what it stood for. Countless generations, rotted long ago, countless efforts, withered long ago, referred to themselves as modern. They had all been “just now” at one time or another, and what came after they had called future. “Post-just-now” is, then, a meaningless expression.

It may be worthwhile to look for an explanation of the clumsy term. I believe, it can be found in the feeling of homelessness, of not belonging, that has invaded our epoch. Every achievement that could be considered of the first rank appears to belong to the recent past; we seem to live in terminally epigonic times. Writing is post-Proust, post-Joyce, post-Kafka; music post-Bartok or post-Berg; painting post-Picasso or post-Braque; architecture post-Loos, post-Mies van der Rohe, post-Le Corbusier; and so on. Only the natural sciences appear

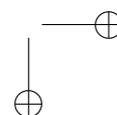
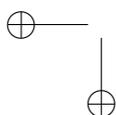


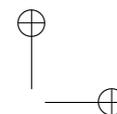
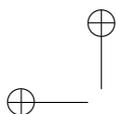


to be an exception: nobody would speak of postmodern science. (That “nobody” may not include me, but that is beside the point.)

One of the early uses of the word incriminated here occurs in the following quotation from the eminent sociologist C. W. Mills, who wrote in 1959: “Just as Antiquity was followed by several centuries of Oriental ascendancy. . . so now the Modern Age is being succeeded by a post-modern period.”

Do we need designations of this sort; do we have to historicize the *hic et nunc*? If we do, the adjective *terminal* recommends itself: it has been calculated that the existing nuclear arsenal will make each of us die fifteen times; a luxury denied even to Lazarus. If *terminal* is not agreeable, I should suggest *postrational* to describe our times and our efforts.



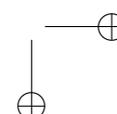
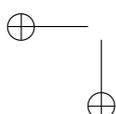


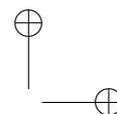
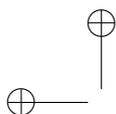
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KNOWLEDGE INDUSTRY

We are often being told that the natural sciences and the so-called humanities are, through their research activities, concerned with the production of new knowledge. That new knowledge is first incarcerated, in the form of articles, in innumerable professional journals. Much later some of it will penetrate into treatises and textbooks. Were a layman to glance through the table of contents of one or another scientific or scholarly journal, he would certainly find most of the titles of the papers completely incomprehensible, but quite a few titles will strike him as outright funny. Whereupon I must timidly raise my warning voice.

Since we have all been created equally funny and gifted equally with an acute sense of humor, coupled with complete incomprehension of what the others are talking about, we are too prone to groundless hilarity. Ancient syndics of Florence, possessing a similar sense of the ridiculous, must have been moved to loud chorles when reading Michelangelo's specifications for the Medici chapel. Our world has become so grotesquely complicated that only Buster Keaton or Monsieur Tati could live through it without moving a muscle of his face. Otherwise, I have long ago given up deciding whether people are laughing or weeping when struggling through



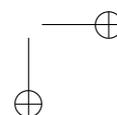
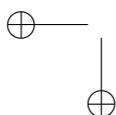


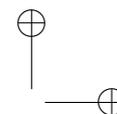
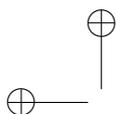
their days and nights, coping, for instance, with all those forms that we are called upon to fill out in triplicate.

It must, however, be conceded that almost everything done by others, and most of all by so-called specialists or experts, carries a strong element of the comic for the layman – and who is not a 99 percent layman in this professionalized world of ours? It is, in fact, with the professional, the expert, the specialist that my story of woe begins; whereupon I resort, unashamedly, to the marvelous *Oxford English Dictionary*, the most readily available case history of the health and the maladies of a language. The linguistic pathologist will also want to consult the *Dictionary of Americanisms* and *Webster's Third New International Dictionary*, not to speak of the several slang dictionaries whose half-life, unfortunately, does not much exceed that of radioactive phosphorus.

As was to be expected, the designations, in the sense of which I speak here, are all products of the industrial and mercantile nineteenth century: *expert*, 1825; *professional*, 1848; *specialist*, 1862; the related term *expertise*, exuding an exquisite aroma of solid opulence, dates from 1868. Only one word that belongs loosely to the same clan, although it is employed less often, is older: *authority*; but that term dwelled for a long time in higher dimensions. So Wyclif in 1375: “Reproved him sharply by authority of God.” Only much later, in 1665, one spoke of “celebrated authorities.” What had stood for the power of God was transferred to designate a person.

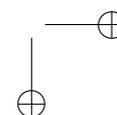
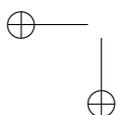
Consulting one of the thesauruses, those prompt purveyors of a bad style, I open a Pandora's box. As synonyms of expert I am being offered “adept, artist, artiste, authority, dab, dabster, doyen, master, master-hand,

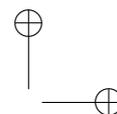
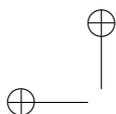




maven, passed master, past master, pro, professional, proficient, swell, virtuoso, whiz, wiz, wizard.” Feeling poor before such spurious riches, I concluded that there is no such thing as a real synonym, a conclusion easily tested by taking an expert in the public domain, let us say the president’s adviser on foreign affairs. About the *mot juste* for one of the previous incumbents I have no doubt: he was, of course, the maven of foreign relations. But for some of the later holders of that position, would *dabster* do, or is that too much?

It is my impression that the rise and the institutionalization of the specialist, the expert, the professional have driven out and made impossible what used to be considered as scholarship, and that thereby mankind have been made poorer. In other words, where expertise prevails, wisdom vanishes. The concept of the scholar (*savant* in French, *Gelehrter* in German) reaches far back in history, and there may have been no literate times from which it was absent. In that respect, also the Middle Ages were far from dark. Scholarship was highly regarded, often poorly recompensed, but in a few cases well remunerated, and it comprised not only the humanities but also what then was considered natural science. There were scholar amateurs and scholar pedants, there were great philosophers and historians, philologists and linguists, astronomers and physicists, botanists, zoologists, anatomists, physicians. They erected imposing philosophical systems, like Descartes or Malebranche, Leibniz or Spinoza, Kant or Hegel; others destroyed the destructible: with passionate irony, Kierkegaard; with millenarian fierceness, Karl Marx. Dreams of historical generalizations were followed, but not replaced, by the

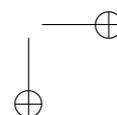
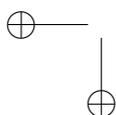


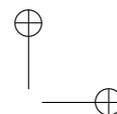
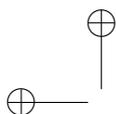


assiduous collection of historical sources. This does not mean that a Bossuet or a Vico were rendered unnecessary by a Ranke or a Mommsen. Many wrote with great difficulty, tongue-tied before the enormity of what they had to express. Others were great poets in prose, placing a fermata, as it were, over what they had thought and written, so that the distant chords still reach into our impoverished century.

Even if outdated in all its particulars, scholarship lasts as a total achievement, or it did so until not long ago. The institutionalization of all intellectual activities; a misunderstood and misapplied scientism; a crude reductionism exerted on what cannot be reduced; a galloping expertitis, degree- and prestige-drunk; the general persuasion that anything new automatically deposes anything old: all those and many other agents have brought it about that scholarship has nearly vanished after having been in a slowly accelerating decline in the past hundred years.

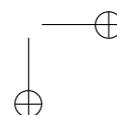
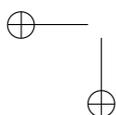
The onset of the decline is probably marked by the appearance of the names of those predators of scholarship (one could almost call them the sapientivores) whose vocabular debuts I have mentioned before: the expert, the professional, the specialist. Professions there must have been in all times, only they would probably have referred to themselves as crafts. I am sure, there were bakers in Sumer, and they baked bread and it was good to eat. Now that we have highly specialized baking syndicates, I do not know whether they still knead and bake; but what they produce is a plastic wrapped in plastic, and it is inedible. I have learned that an expert is someone licensed to do the things he cannot do.

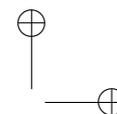
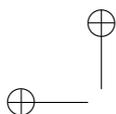




Regardless of whether we think of Erasmus of Rotterdam or Grotius, of Hobbes or Bayle, of Albrecht von Haller or Alexander von Humboldt, the products of ancient scholarship reached a much wider circle of educated readers than could be found now. Gibbon's great work was certainly read, received, and understood by a proportionately much larger audience than is true of, say, the Cambridge Ancient History. Long before there were communication satellites and when real news therefore spread faster, Dr. Johnson was sufficiently well known in distant Königsberg for Kant to make a few unfriendly remarks about him in his *Anthropologie*. The indexes to the diaries of the poets Coleridge and Novalis display an immensely wider erudition than even nonreaders of the *Scientific American* could muster now. I do not wish to imply that specialization and barbarization go hand in hand, for I have met too many barbarians who did not even know much about little but there is a connection.

I should find it difficult to define the period in which this process of encapsulation – the scholar making way for the specialist – began. That process had probably something to do with a change in the speed at which new knowledge was accumulated, and perhaps also in the conception of what constituted new knowledge. The triumph of the natural sciences has made us insensitive to the qualities of knowledge, one bit of information being as good as another. Also, nature is supposed to be grateful for every secret torn from her. The old dispute about the equal validity of a madonna and a cabbage as the painter's subject does not pose itself to the scientist: he finds what he finds. (Of course, he may be wrong, and there are differences, even beyond the winds of fashion,



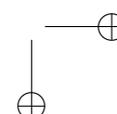
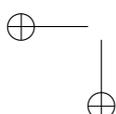


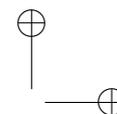
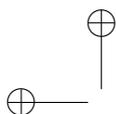
between important and trivial; but this is a minority opinion, which does not enter here.)

Most people like to know the truth. (This, incidentally, does not apply to me; with Lessing, I prefer the search for the truth to its possession.) The more truth, the better, for the truth will make us free. Actually, it seems to enslave us. What most people do not appear to have noticed is that research delivers truths, not truth, there being no real plural, except perhaps *probabilities*. In any event, universities and institutes began to function as knowledge factories and to neglect their real task: the education of the young. They became bureaus for the issuance of professional licenses, and these required, in turn, the proof that one had produced new knowledge. Although the faded aureole of the scholar still surrounded the hapless heads of the searchers for scientific truth, the real substance had vanished long ago: the change in quantity had produced poor quality. Sir Thomas Gresham, looking down from the bankers' paradise, smiled benignly.

To the prophet of doom time accelerates: his quick-motion eyes sometimes do not distinguish between fifty and five hundred years. The fate of that backward prophet, the historian, is similar. The changes that I am trying to describe also took longer to manifest themselves than any definite date would indicate. Still, an inconspicuous event, marking more than the clash between two generations, may help us to perceive the crest of the watershed.

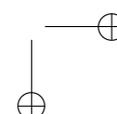
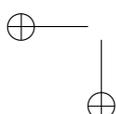
Jacob Burckhardt (1818–1897) worked during his last few years on a history of Greek culture. He had for several semesters lectured on that subject in the courses

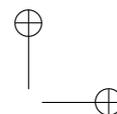
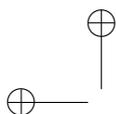




he gave as professor at the University of Basel, but the writing went slowly and finally he abandoned the whole thing. The old grumbler's letters are full of complaints about the hopeless task, which was indeed enormous. A reader of Burckhardt's best-known work, *The Culture of the Renaissance in Italy*, will know how much he subsumed under that designation. The pertinent portion of the Webster definition of *culture* sounds dry and remote: "the total pattern of human behavior and its products embodied in thought, speech, action, and artifacts." It meant extracting, clairvoyantly, the essentials from all surviving primary sources concerning the religious, social, political, intellectual, literary, and artistic life of that most gifted, highspirited, volatile of nations. I have emphasized the primary sources, which include, of course, the surviving works of art and architecture; for the old scholars (for me the only real ones) paid much more attention to those than to what other scholars had written about them. They were very much islands to themselves. When they spoke, it was to a public considerably wider than their colleagues, something unthinkable to us in a time when specialist addresses only specialist and the people at large are limited to carrying the cost of their lucubrations.

Burckhardt's course on Greek culture was apparently popular. He notes proudly in one of his letters that he had as many as fifty-three registered listeners; that, it is hard to believe, seems then (1873) to have been one-third of the total student body of the ancient and famous university. That his lectures found acclaim is not surprising, for he was a profound and illusionless thinker about man and his destinies. When Burckhardt



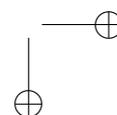
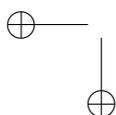


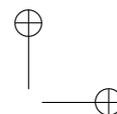
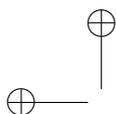
died, he left the first half of the *History* more or less ready for the printer; the second half, including the particularly interesting end portion, remained in the form of very elaborate and detailed lecture notes. The entire work, edited in an unusually tactful and reticent manner by Burckhardt's nephew Oeri, was published between 1898 and 1902. But times had changed: the expert had appeared. Burckhardt's unfinished masterpiece was "finished" (in the sense of being bumped off) by the man who at that time was the greatest specialist in Greek philology.

Ulrich von Wilamowitz-Moellendorff (1848–1931), thirty years younger than Burckhardt, was at the height of power and influence as professor at the University of Berlin when he administered the coup de grace. It is true, as a young man he leads an inglorious existence in Nietzsche's correspondence, where he appears as the despised "Wilamops"; but he grew into a great scholar of the new observance, highly regarded by other Greek philologists. Soon after the appearance of Burckhardt's first volume, in 1899, this is what he wrote: "Finally, I should consider it as cowardly not to say clearly that the 'History of Greek Culture' by Jacob Burckhardt does not exist for the scholar."

I should add that, if you now, more than eighty-five years later, go to a bookstore in Vienna or in Zurich, you will find many of Burckhardt's books, but almost never one by his executioner. It simply is always so that the newest is a deadlier enemy of the new than of the sturdy old.

What had made the great philologist so angry? Well, if you want a plain answer, I believe it was that Burckhardt

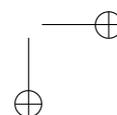
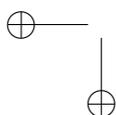


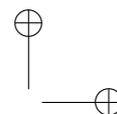
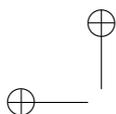


had paid little attention to him and other great philologists of his time. The old historian had been content with reading the Greek and Latin writers, sometimes in the antiquated editions of his youth, and certain emendations, corrections, and substitutions, and even a few newly discovered papyri, may have escaped him. Great philologists are inclined to exaggerate the importance of their philology, just as molecular biologists tend to do the same with their molecular biology. One of the most unlovable and stupid traits of the mediocre scholar or scientist has in all times been the conviction of being at the peak of attainable perfection, of knowing all there is to be known. It is true, every generation could write its own book, carrying the title *De omni scibili*, "Of All That Can Be Known," and it would always be a small book, but never the same small book for two generations.

Whereupon I hear the voice of my eternal interlocutor, a retired devil on a small pension, and the voice points out that in our times such a book would be enormous, innumerable volumes, much bigger than the largest of ancient Chinese encyclopedias. This is not an argument in which I like to get involved, for I have never acquired a university diploma for thinking and I am, therefore, unable to discuss, in a manner acceptable to college philosophers, the true meaning of knowledge. Is it what you or I know or believe we know? Is it what the computer knows? Is it what the best-selling omni-writer knows? Who knows?

The profound philosopher Wittgenstein wasted, or sanctified, his life, trying to gain certainty about the meaning of "certainty." On me, his labors were lost: I am still sitting in the same fly-glass in which he found



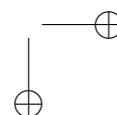
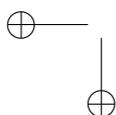


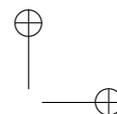
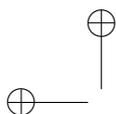
me in the beginning. There are skeptics and there are born-again baptists. They are presumably all endowed with some form of brain; but that important organ must be storing very different certainties in the ones and in the others.

There is the kind of knowledge that is directly and immediately relevant to the individual who possesses it or can draw on it, and there is the kind of knowledge that is essentially irrelevant, though it may be nice to have. Most of the knowledge provided by the natural sciences is of the second kind, glorious though the mental achievement may be in some cases. In this connection, I must make a horrible confession. In spite of my having been a scientist for a very long time, in my daily life I still live under the Ptolemaic system; Copernicus leaves me cold: the sun rises every morning. Of course I know, having been told it so often, that the earth rotates around the sun and that the Darwinian scheme of evolution is correct; but even my scientific work would not in the least have been affected, had it been performed on a flat and stationary earth and with organisms produced according to the gospel of Lamarck.

This can also be put differently. The assertion "I know that my redeemer liveth" signifies an entirely different quality of knowledge from that expressed by the outwardly rather similar statement "I know where my redeemer liveth." With the present impact of science on society, that information would, however, probably take the form of "I know a fellow who says he knows. . ."

Whenever I come upon a definition of our time, it seems to contain the prefix "*post-*," as if all present were past and no future waiting. Although we live in the

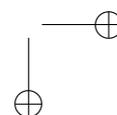
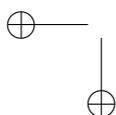


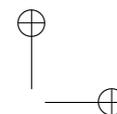
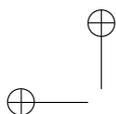


“postindustrial” age, which is also “postideological” and “postcapitalistic” (and for all I know also posthumous and posthuman), one thing I do not hear it called is “postbourgeois.” It seems that the proletarians of the world, by losing even their chains, also lost their identity; and everybody now is a little bourgeois or studying to become one. The young Karl Marx, so much better at diagnosis than at therapy, saw the hippocratic facies of a class, when it still wore very short pants, but like all good prophets he underestimated the duration of the agony.

In any event, the modern phase of science and of scholarship began, in my view, with the rise of the bourgeoisie, which did not have to await Guizot’s exhortation to begin enriching itself. Exploring and exploiting became synonyms, the collection of knowledge another form of the accumulation of capital; experts were a sort of two-legged Consols through which invested knowledge bore high and perpetual interest. Just as bonds were deposited with bankers, knowledge could be stored in special brains, to be called upon, when needed, by the entrepreneur. Knowledge was not only power, but power infinitely augmentable; there were no limits, as there were to circulating money. Even now, as we are surrounded by it, most of my colleagues will deny that there exists such a disorder as intellectual inflation.

Fate favors the prepared mind; and so, some time in the beginning of 1980, just when I was contemplating the present essay, I received a letter from the White House. My heart beat faster as I opened it. “Who knows?” I said to myself. But no, it was only a bit of electioneering fluff, a circular letter from the president’s science adviser,

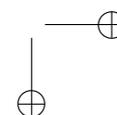
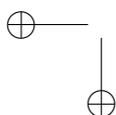


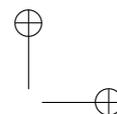
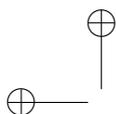


outlining the provisions in the 1981 budget for “basic research” which, incidentally, could not be inordinately basic, as the largest increase (21 percent) went to the Department of Defense. The last paragraph of the letter read: “In a recent ceremony at the White House the President indicated that one of our most important National tasks is the continuing strong support of the search for knowledge. The budget reflects his commitment to that goal.” The context shows that this happened under President Carter. Not that the verbiage would have been much different with Mr. Reagan; only for the word “knowledge” the words “new weapons” would have to be substituted.

Platitudes have a hypnotic effect. Who can be against the search for knowledge? In go \$5 billion and out come 50 billion pieces of knowledge. What is, with a misplaced capital, called the “National task” will make us ever richer. That knowledge produced on the assembly line is actually worthless, does not seem to be a conviction shared by many. At any rate, it is mine: wherever I go, I hear the senseless clatter of the knowledge industry.

It has not always been so. Although the Golden Ages I have known in my life, have all been beastly, they differed in their attitudes to scholarship and research. The dubious claim that knowledge is power appealed to early imperialism; but there still existed many islands where a kind of knowledge was sought that was morally neutral or even laudable. Specialization had set in long before my time; but the individual scholar or scientist had, in his student days, received a broad education and was free and, even more important, was able to roam. The various nations did not yet consider it their

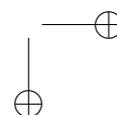
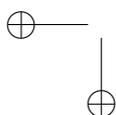


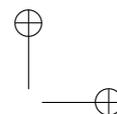
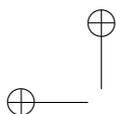


obligation to function as forcing houses for the wholesale production of “new knowledge.” I do not believe that there existed anywhere an officially, and shamelessly, proclaimed “National task” of this sort; and even so, the president would not have found it easy to jimmy his way into the pantheon in which the names of a Pericles or an Augustus are preserved.

Thirst is a driving force only as long as it cannot be stilled. That applies also to the so-called thirst for knowledge. Nobody I ever met thirsted for knowledge. He may have been curious, ambitious, eager, imbued with a hunter’s ardor, until finally *rigor vitae* set in, and he could not have done differently, had he wanted it; but if he thirsted for anything, it was for the fame that goes with the reputation of having acquired knowledge, and he would have settled for celebrity and some cash. Real seekers for knowledge keep well hidden, and it is mostly not new knowledge they are after, but old and solid knowledge. I have always suspected Doctor Faustus of being a stage figure. In our times, all intellectual activities, all sciences (in the broadest sense), have become a spectator sport, and the interest of the public is limited to knowing which fighter will slay which bull, mingled with a slight hope that it will be the other way around. Had we been told in the newspapers that Relativity had revealed Dr. Einstein, we should have been satisfied equally.

Ours is about the most ignorant age that can be imagined. Much rather than the hapless applicants for the New York police force, I should like to see our leading statesmen subjected to a simple placement exam. I believe, even that most disillusioned of ancient Swedes,

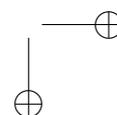
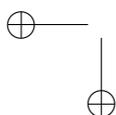


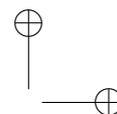
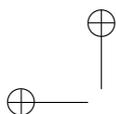


Count Oxenstjerna, would shudder at the result, for he would hardly accept the excuse that with so many think tanks around our politicians need do nothing but meet the press.

There is a good reason why new shoes have to be manufactured or new telephone directories: the old ones can no longer be used. Similarly, Congress must go on making new laws, because the old ones have been broken. But that does not apply to most of what we call knowledge. Considering the good it did me, I should say that I could have learned my geometry in Euclid, my Latin in Donatus. In many respects, the old editions of the *Encyclopedia Britannica* convey more solid knowledge than the newest one. How many books could there be, if every writer had to make a vow, an enforceable vow, of originality? There are, of course, other reasons for so-called scholarly books to be written in endless repetition, and those reasons are mostly economic. The existence, for instance, of multiple competing textbooks has nothing to do with the thirst, or the search, for knowledge.

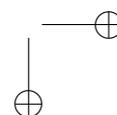
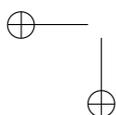
I shall be told, and I am inclined to agree in part, that the kind of books about which I seem to be talking here has nothing to do with new knowledge or the search for it, and that it is, in fact, the success of the search that renders those books obsolete so soon. My answer, congenitally feeble-minded, will be that new knowledge is worthless if the old knowledge is lost on the people. They may sit, watching a screen on which a fellow does something to Mars that they do not understand, or hearing a celebrity making a fool of himself; but they know no history, no geography, no languages, nothing.

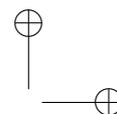
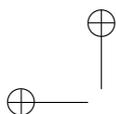




The principal general recipient of, and beneficiary from, new knowledge appears, therefore, to be the computer. That younger colleague of mine has given me a lot of worries, and I have always tried to stay out of its way. But what is the sense of blabbering about new knowledge, if there is no money to repair the old subways, to rescue the old cities, to help the old people? We are being told that for this nation to stay on top, it must have the newest knowledge and the best science, and that this would make it respected and even loved. Maybe so, although I always thought that he who declared that he wanted to be loved was unlovely, and he who wanted to dominate was mediocre. Rome did not scream that it had to be Number One: it was.

At the end of the Second World War, exuberant when everybody else was prostrate, well fed when everybody else was starving, the United States embarked on a crusade for knowledge and also, I am afraid, on the conquest of death. Later, fearing to run out of goals, they added the universe. It was the triumph of the Texas spirit: doing the impossible, with mirrors, on a cost-plus basis, and then calling a press conference. As the economic pressure that led to the creation of the short-lived paradise came mainly from the large number of scientists, brought forth by the war effort, it is not surprising that the major attack was directed against nature. The private foundations, which had done a reputable and reticent job in supporting small science, were forced to relinquish the field, for gigantic spenders of federal billions had come into being: for instance, the National Science Foundation, the National Institutes of Health, the Atomic Energy Commission, the Office of Naval Research, and the other

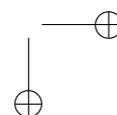
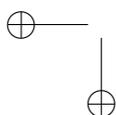


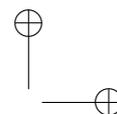
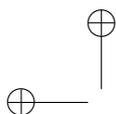


agencies connected with the defense, agriculture, and other departments. More recently, and for greater industrial diversification, smaller National Endowments for the Arts and the Humanities were created; and now there exists even a National Humanities Center.

We have, hence, for many years been geared up fully for the large-scale manufacture of intellectual goods; and since these are imperishable (although refrigeration helps), the storage space, I suppose, must begin to be overtaxed. The production of scientific papers has indeed been enormous. Even now, when, with unemployment, disillusionment, and general spiritual and financial exhaustion, the habitual rodomontades begin to sound a bit insolvent, American scientific papers amount to nearly one-half of the world output. Whether the few very important scientific principles discovered during that period would not also have been found under the old provision cannot be decided, for one must keep in mind that too many acute thinkers thinking acutely at the same time create a traffic problem and begin to hinder each other. Also, an abundance of laws of nature, enthroned and deposed with exaggerated rapidity, confuses the human mind. Modern science always was somewhat reminiscent of the stock market; at present I have the impression that it is operating on a perpetual Black Friday.

The mournful observer of human stupidity and greed never runs out of matter. Nowhere else does the kaleidoscope of follies and vanities swing faster than in New York. Even the mail, though no longer delivering letters, brings bills, solicitations, and announcements. There is no end to the worthy goals that request me urgently to send them a check. Not a few of the institutions lure me



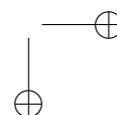
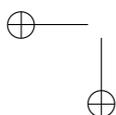


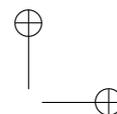
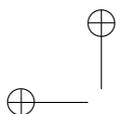
with the promise of the marvelous research work to be performed if I only send them \$25.00: universities, cancer institutes, hospitals. Photographs of distinguished scientists, usually of very old vintage, embellish the brochures. I can send no money, but the mendicant clatter, the tinkle of the tin cups, set me dreaming.

I think about grants, about money and its mysterious lubricating effect on the mind. Money given, and no questions asked, can have a marvelous effect. Did Vergil have to submit a pink and a yellow copy of his application when he went to see Maecenas, that antique version of the National Endowment? Did he have to explain in what way his undertaking was novel or scholarly or whatnot? Did he have to meet those Washington faces, iridescent with washproof sincerity?

Meditating about the fiscal way of creating culture where none ever will grow, I used to say that all that money does is to create takers, and much money, charlatans. What would have happened, if van Gogh or Rimbaud, Trakl or Kafka, Christopher Smart or Chatterton, had applied to the National Endowment for the Arts? If Baudelaire had put down as "title of the project" *Fleurs du mal*? In the best case, Kafka might have been encouraged to apply for a grant in entomology, but he would not have passed the peer review.

Our lives are being governed by experts who may not be very bright but know where to look it up. Specialists of the same discipline are usually of one opinion, except when being paid by the two sides of a lawsuit; then they are of two opinions. From birth to tomb we are the objects of research. The smallest fetus will not escape having his horrorscope cast from his chromosomes by

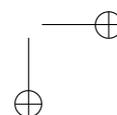
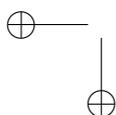


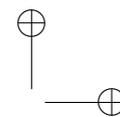
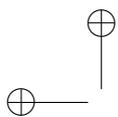


cytogeneticists. When he grows up despite the efforts of education experts and receives a social security number, he becomes the object of statisticians, sociologists, political scientists, economists. In the later course of his unavoidable life he will get into the hands of the biomedical profession; and when he finally reaches the other end, his agony will be studied by thanatologists. Ethicists will have deplored his morals, analysts will take apart his soul. Gurus, prophets, trendsetters, politicians will have misled and confused him. He is the universal grist, and he will figure in innumerable papers, books, questionnaires, study reports.

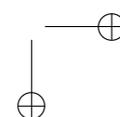
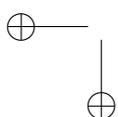
The low quality of our writing, our art is not redeemed by courses in art appreciation or the interpretation of poetry. Dr. Dryasdust will not become more imaginative when sprinkled with small amounts of public money. Hegel's *Weltgeist* seems to have assumed the appearance of a giant eraser, as if all memory of what the human spirit had created were to be extinguished before the final annihilation. In the meantime, academic chaff of all sorts, cultural and scientific, is being ground to powder day and night. Blake spoke of the "dark satanic mills," but now that we have unlimited nuclear energy, they are illuminated brightly and doubly satanic. To say it in Diabolese, if the old knowledge has failed, new knowledge will make us happy. Let us make it by the ton, for wisdom is cheaper wholesale.

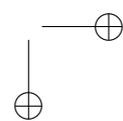
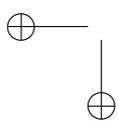
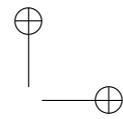
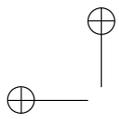
The absurdity of the knowledge industry had been recognized a long time ago. There is an excellent anecdote that Kaiser Wilhelm I of Germany, Bismarck's old emperor, liked to tell. When he still was only king of Prussia, he once visited the Bonn Observatory and asked the di-

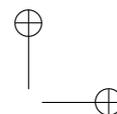
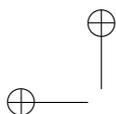




rector a jovial question. "Well, dear Argelander, what's new in the starry sky?" The answer came promptly, and it was another question. "Does your Majesty already know the old?" Whenever the emperor retold the story, he is said to have shaken with laughter.





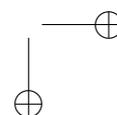
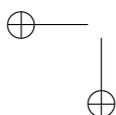


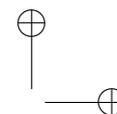
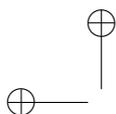
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LABYRINTH

You can always start anywhere, wherever you please, and proceed on a multicircular path; you will never reach the origin, the cause. There does not seem to be any, but you know, there must be. Is our world, then, a tangle of Möbius strips, or is it a maze whose builder has sealed its one and only exit? You may, as I said, start anywhere. With the smell and taste of the water with which you rinse your teeth in the morning, or with the forms the tax people send you once a year; with the New York subway or with the dying trees in the forests; with the sufferings of a poor paralytic choking on an artificial heart, or with the photogenic smoothness of the surgeon who implanted it; with the photograph of a long-skulled skeleton dying in Ethiopia, or with a spruce old conférencier in Washington, reading off a script, announcing the Second American Revolution; with a group portrait of nineteen recipients of the National Medal of Science, none of whom knows what he is doing, but does it day and night, or with the mother who chokes her newborn child; with the mother who rents out her uterus, or with the lawyer who takes her on contingency; with the tired, lifeless faces on the bus, or with the children mugging old women in the street.

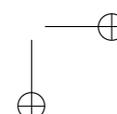
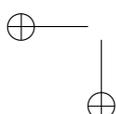
You can begin anywhere but you will get nowhere, unless you start with an overwhelmingly strong faith

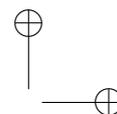
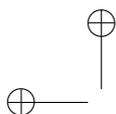




in the inevitability of there being an origin; just as the only way to get out of a labyrinth is to know that there exists a way out. Such a faith is rare, but it ought to be found among the young, though they, I am afraid, mostly prefer to play video games, computer games; “the system” has hollowed them before they grew a core. Causes and symptoms have become interchangeable; all reasoning has been rendered circular; the system creates the effects which, in turn, create the system. It would be a mistake to add a qualifier to what I have called here “the system” and to speak of a “capitalist system” or a “Marxist system.” Lake Baikal is no less dead than the Rhine or the Hudson, and I am sure that if there still are aborigines they would rather spend their money on a television set than on a loincloth. Possessing neither of these two, I feel inclined here to make a few attempts to follow the convoluted ribbon which I inhabit until it meets another one and again another one, when at the end the intractable giant knot is formed that strangles us all.

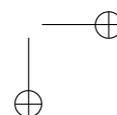
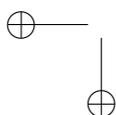
Consider, for instance, the chemical industry. Having myself been a chemist during all my active life, that enormous branch of technology is, perhaps, if not dearer to my heart, then nearer. As I have argued repeatedly, primitive forms of chemical industry must have existed long before there was the science of chemistry, a science that, in its turn, has again been as indispensable to all industry as have mechanics or thermodynamics. (This is possibly the first intersect on my circuitous pilgrimage: a manufacture giving rise to a science which is essential for its further growth.) It was probably in the fourth quarter of the last century that chemical plants began to grow

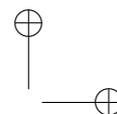
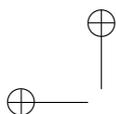




into the giant undertakings that they are now. (I must leave out innumerable other branch points, represented by very large enterprises derived from chemistry, such as smelting, oil refining, pharmaceutical products.)

And so we now have an enormous network of factories, making paints, pills, pesticides and polymers – I limit myself, alliteratively, to a few of the ten or hundred thousands of products manufactured – and they cover the earth, very often as multinational conglomerates, employing millions of workers and poisoning air, water, and soil over the entire globe. Like everything else in the world, the poisoning – *pollution* is too mild a word – must have started modestly: a tiny yellow or reddish cloud over a smokestack somewhere in Saxony or Southern England. There came the winds, the mighty winds, and dispersed the cloud, never to be smelled again. Or, more unscrupulously from its very beginning, unassumingly modest effluvia or other trash were emptied into lake or river. After all, when King Arthur's washerwomen did their laundry at the river's edge, they knew how quickly the soap bubbles were carried away, and no fish seemed to complain. Man has lived since times immemorial with his own stench and excrements, and no damage resulted; quite the contrary, flower and fruit thrive better on that diet or on similar ones than with all the synthetics science can provide. Paleolithic man, though unable to spell *biodegradable*, relied on this valuable property more successfully than we do; he knew nature to be a reliable, if awfully slow, garbage collector. You must, however, give it plenty of time; and early man, before he knew of the concept of time, had much more of it than we have.

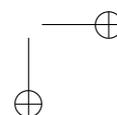
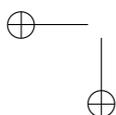


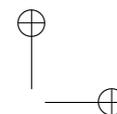
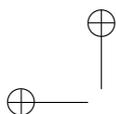


But mercury or lead are not biodegradable; and if dioxin is, I should like to meet the kind of *bios* that can do it. In my opinion, there must exist a homeostasis of nature, multidimensional, as it were, in which time is one of the coordinates. We are the first to have destroyed this hard-to-grasp equilibrium, hard to grasp because it reaches into regions that science cannot explore. But I am convinced that the world can get along much better without people than without trees: a preference that nature will declare eventually by getting rid of man. Imagine the last surviving professional sociologist, discovering undreamed laws of catastrophe and chaos, with nobody left to whom he could transmit his remarkable observations.

It is, of course, not only a question of substances that are outright toxic to the human organism; even the massive emission, beyond the limits of toleration, of substances required by the body, such as phosphates, can have disastrous consequences. In other words, the pollution caused by a few charcoal kilns could be endured easily, but multiply it by a million and you get Gehenna.

Why then this factor of a million, one could ask, why the enormous growth of the chemical industry in our time? It can only to a very small extent be explained by the growth of the world population, nor, as is the case in many other industries, by the ever increasing shoddiness of the products. The less durable a pair of shoes, the oftener it has to be replaced. But so far as chemistry is concerned, I am perfectly willing to assume that a tank labeled Methyl Isocyanate does contain this chemical, and the inhabitants of Bhopal in India can, unfortunately, confirm it even more convincingly.

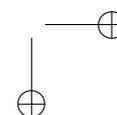
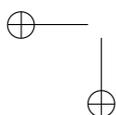


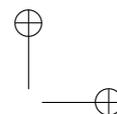
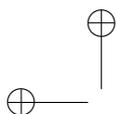


The disastrous increase in world population can be explained rationally, at least in part, through the decrease in infant mortality, the discovery of antibiotics, and through other hygienic and medical achievements. Such reasons cannot, however, be adduced as an explanation of the general expansion of almost all that we are in contact with, an inflation which I believe far surpasses in proportion that to be expected from the increase of the population.

At this point I must make a remark that is so unscientific, and perhaps even irrational, that I hesitate to express it. It is my impression that a control mechanism, a kind of gyroscopic control, that regulated Western humanity for thousands of years has become inoperative. The slackening of the regulative forces may first have become noticeable at the time of the French Revolution, but the complete disturbance of balance I should ascribe to our century, from 1914 on.

I am unable to specify in detail the components of those vanished controls. One element was certainly religiosity, whose gradual desiccation took the form of a scientifically conducted disintoxication process. The abolition of sin or of guilt, and even of a bad conscience, is probably one of the triumphs of the American way of life. Another element was steadfastness and a diffident aversion to change. In our times, on the other hand, every piece of glittering junk can sell itself if it is "innovative." Frugality was another decisive ingredient of the regulatory forces. Not to desire more than one really needs is an attitude so foreign to us now that we are wont to regard it in comical terms. The contented miser, peering through the window of his tax shelter, is perhaps the nearest

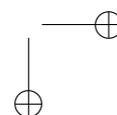
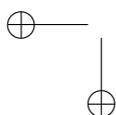


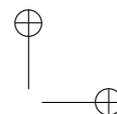
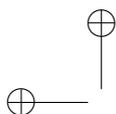


approximation to a contemporary Diogenes that we can imagine. But the most important component of the controls was the consciousness of being human, a creature of God, accountable to the creator.

Faith, stability, frugality, humanness: four pillars, once so strong, now burst and broken. There are no controls anymore, everything grows; the cancer cell is the only valid emblem of our time. Instead, the people, at least those of the Western world, seem to have been dipped into a peculiarly commercial version of the ancient river Lethe: they forget faster than they experience, and cannot understand how they could have lived without things that did not even exist a year ago or two. In this manner, expensive pieces of mechanical junk are palmed off on them continually. Just now it is the video recorder and the personal computer.

It is, however, time to close this long parenthesis and to return to the chemical industry which I have left, fuming dangerously, in the background. It is one of the innumerable problems that offer endless circles of fruitless exploration and empty talk. It is, therefore, imaginable, at least in a beautiful cerulean dream, that a messenger had to be sent from outer space, a deputy of the higher extraterrestrial intelligence for which such a noisy search has been made recently to no avail. But now he is here, sent to act as the ombudsman of earth before it is too late. He takes one look and one smell, forbids the circulation of all gasoline-burning vehicles, and decrees, provisionally, the cessation of all large-scale chemical manufacture. He also shuts off, with a motion of the little finger of the left hand, all nuclear power stations. He (I hear the muttered complaints) has pushed us back to, say, the year 1700,

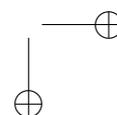
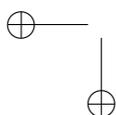


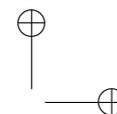
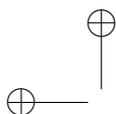


for he has concluded, I believe correctly, that the greatest immediate threat to the survival of nature comes from chemical contamination and from the combustion engine, although the long-term effects of ionizing radiations must not be forgotten.

“Never mind,” the wise ombudsman says, “that there still may be a few places where the concentration of carbon monoxide and of the oxides of sulfur and nitrogen in the air and of mineral acids in the water and the soil is below the limits of toleration. When your house is on fire, you save the children first and then the paintings. There is no time anymore for those loquacious committees of venal experts who still argue about the cause long after all the effects have been realized and the damage is done.” Being of higher, truly extraterrestrial, intelligence, the astute messenger does not fall for the customary tricks of the specialists when they assure him that there is a record of the death of a forest somewhere in Bavaria in the sixteenth century whose cause they must first investigate; that people have always been exposed to cosmic radiation; or that nature has always engaged in genetic engineering, so that finally we have become clever enough to found stock companies to that purpose.

Alas, the dream of azure fades, there is no heavenly messenger, and the time has come for *homo sapiens* to show his *sapientia*. The first measure to take would be to do what every experimenter in the laboratory learns soon enough: *to avoid the avoidable*. And there is much that can be avoided: what comes out of the smokestacks and the exhaust pipes can be passed through filters and over catalysts; the type of fuel burned in endangered localities can be regulated; and many other measures could be

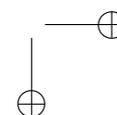
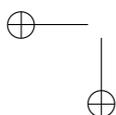


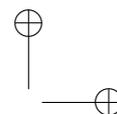
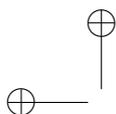


contemplated, were it not for the experts whose main function seems to consist in preventing all precautions from being taken in time. (I shall hasten to add that this attitude is not necessarily due to malevolence; it may represent the very laudable caution of the scientist, who refrains from drawing conclusions before all the facts are in. But in political and social decisions of the magnitude here under discussion this sort of inductive prudence may be lethal, because all the facts can never be in.)

At this stage we encounter, however, a huge snarl of junctions in which we are bound to get lost. The installation of devices in order to clean up the emissions costs a lot of money, and the industry will protest, pointing to the loss of competitiveness; the motorists will protest because this is a free country; the nuclear engineers will protest because nuclear energy is good for them. In a democracy everybody, including myself, protests against any measure affecting him; the richest wins. The labor unions, embattled all over the world, cannot afford to condone the loss of jobs; they are, moreover, impeded by the shortsightedness of their leaders and the divergent, often strictly opposite, interests of their members. The disappearance, for instance, of the ancient and noble craft of printing is, presumably, of advantage to those engaged in electronic data transfer.

That our environment is being poisoned, and probably irreversibly, is now common knowledge, but very little has been done against it, nor can much be done, I fear, under the present circumstances: too many strands are twisted in too many directions. Incidentally, I always feel uneasy about the anthropocentrism of the word *environment*. It is nature, not the environment only, that

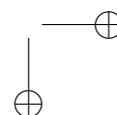
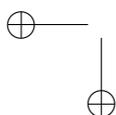


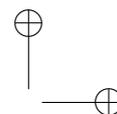
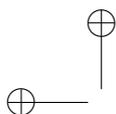


is being destroyed, men no less than trees. The savior of nature has not arisen; should he ever appear, who knows what will become of him? He will have to expiate sins unknown to the Old and New Testaments.

Earlier, I used the word *democracy*. To this political system, known to be the best among uniformly bad ones, another chapter of this book has been devoted. Democracy is a good example of the fact discussed by me on other occasions that, as soon as we designate something a “problem,” we imply that, though susceptible of endless prattle, it cannot be solved. The term represents another of those giant knots, dealt with here, that it is impossible to unravel. It is surely not an original thought if I say that democracy, as I have seen it practiced during my life, is not so much an expression of the will of the majority as a violation of the minority. *Demos* means the people, and not just the 55 or 60 percent who preferred the blue candidate to the green one. In homogeneous nations, as they still existed in the last century, the outrages due to majority tyranny may have kept within bounds, but we live in times of progressive inhomogenization. This means that even a democratic system becomes totalitarian for large minorities. I have seen democracies that are held together only by the charisma of their currencies.

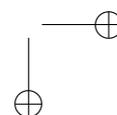
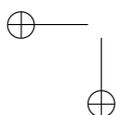
One more twist of my kaleidoscope and, see, it spells out, in blood red and sky blue, *War and Peace*. This is, perhaps, the goriest of all labyrinths and one that manifests more clearly than anything else the irresolvable dilemma of our times. It is probably agreed almost generally that wars are horrible and peace desirable; yet, the history of mankind is mostly the history of wars. The awful reality of eternal warfare has accompanied me during

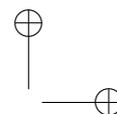
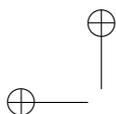




my entire life. I do not believe, there passed one month or two without reports from some battlefield. Wars, the propensity to organized and sanctioned mass murder, are often attributed to the evil nature of man, a defect that is customarily traced back to his animal ancestry. This is, in my opinion, a bad mistake: no animal would sink as low. As usual, the anthropomorphinists are in error. For a very long time, indeed, people lived in the belief that man occupied a privileged place in the realm of the living and that just because of the evil in him man was the only living being susceptible of redemption; but the present has done away with such childish illusions, and we all live in the gray light of a Darwinian universe.

The onset of the nuclear age has, in many respects, taken the fun out of warfare. The so-called superpowers (a stupid name) frighten each other by making ugly grimaces; the secretary of attack now calls himself secretary of defense and, though essentially a bookkeeper, he is revealed as the keeper of the Doomsday Book; the president entertains the populace with nasty remarks that nobody would have expected from such a nice granddaddy. The other side, likewise not in the prime of vigor, is handicapped by their innate admiration, inherited from the founders of the sect, for the land of unlimited possibilities, and also because in their search, on the adversary side, for a proletariat with chains around their necks they discover only a petty middle class watching television. But the balance of terror has become a multi-billion dollar business, terror, it seems, being balanced more easily than the budget. The construction of ever larger machines of nuclear destruction has become so important a part of the economy that, were it to cease

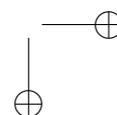
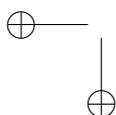


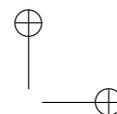
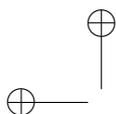


owing to the intervention of the celestial ombudsman of my dreams, people would be driven insane by the avalanche of suddenly liberated money. This, of course, cannot be allowed to happen, and I expect that the armament will continue at an ever increasing speed until a final collapse – first economic, then nuclear – demonstrates that there are limits. This belongs, however, to horror fiction, a subbranch of science fiction, for which I possess no license. In the meantime humanity is being distorted more in one year than it was before in centuries. Perhaps, the collapse will be first human and only then economic and nuclear.

When faced with an unsolvable problem one is usually told, as a consolation, that human beings are resilient and resourceful and that somehow a way out will be found. The way out reveals itself, on closer inspection however, as just a move to another loop of the same maze. To break out into freedom: during the whole of recorded history only few individuals have succeeded in doing that, never a people. And so, I believe, we shall have to live fearful and suspended between giant death-dealing machineries throughout our lives, until – tomorrow or a hundred years from now – something goes very wrong or very right.

The first possibility has been depicted very often, and by some pens even more lugubrious than mine. Dare I consider the second? Lest I be accused of untimely and unwonted optimism, I hasten to assure the reader that the rainbow under which I was born exhibits only different shades of black. I am a card-carrying pessimist. It is a condition in which I thrive, for, as I like to point out, the pessimist is a happy man: should his somber

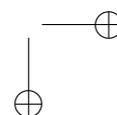
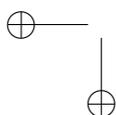


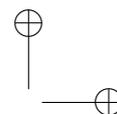
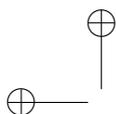


provisions fail to come true, he can be only pleasantly disappointed. Pessimism does not exclude hope; it is not the same as despair, for it knows of a few metaphysical escape hatches that the optimist, that shallow fellow, does not have brains enough to discern.

I am told, though, that America is the very embodiment of optimism, that it would collapse were it to lose forever its lighthearted bliss, and that it is the task of the government to maintain it in the pink of pinkness. And, indeed, only the other day the president danced one of his soft-shoe routines, and the country has again become optimistic. To watch an old man so frivolously agile was invigorating, they said. When I read that in the newspaper I looked around in the subway and I saw no reason to be more cheerful than the day before.

In any event, what I mentioned above as the second possibility, that things could be going very right, has nothing to do with optimism. It merely expresses my acceptance of the Barnum principle that you can't fool all the people all the time. Or, to quote an even higher authority than Mr. Phineas Taylor Barnum, namely, Heraclitus, my second possibility derives from the principle of eternal change. Helena did not remain beautiful forever; Lazarus did not remain alive forever; ash and rust are the destiny of all that is created. Why should that not be true of nuclear arsenals and their guardians? Iron remains iron and copper copper, but machines turn into scrap and human minds become childish and listless. Still, I am told there is always a second generation, of computers, of people. Yes, I reply, but people, in contrast to computers, get ever more lead and mercury into their brains, and even now many exhibit a form of

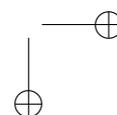
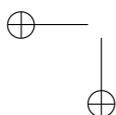


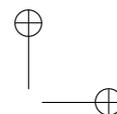
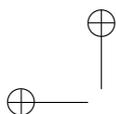


restless lethargy that makes them unable to think. The great importance, at present, of committees, in which the people only think in chorus, or of think tanks, in which they only think when fed at regular intervals, shows that the faculty of individual, original thought is vanishing. Consensus is more often than not a form of randomized feeble-mindedness. It is entirely possible that this dehumanization will continue until the finally established Earthly Paradise will harbor only contented cretins who have forgotten the little they knew and are no longer interested in star wars, the balance of terror, or the pursuit of happiness. It must not be forgotten that one way of getting out of the labyrinth of life is to lose one's mind.

Eternal change, that majestic flow of a mighty river, offers still other possibilities. Not so terribly long ago, in 1968 or so, the young people all over the world seemed to become aware of the shabby confidence game in which the establishments of the world attempted to involve them. It appeared that they rejected all that pomp and circumstance, all that babble about technical progress and consumerish happiness. It was an intense, but very short-lived revolution. All quieted down after a few years; only at the outermost fringes of self-sacrifice a few terrorist groups were left behind to sputter and die. That was the only time in my life when I had hopes of regeneration for, idiotic as it may sound, only the human will and the human conscience can stand up to the atom bomb. It was not to be, but maybe next time.

For I am sure, there will be a next time. What form it will take, nobody can say. It may come unobtrusively, by a sudden slackening of bellicose tensions, due, perhaps, to a very severe economic crisis. Or, just as between two

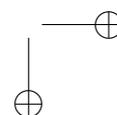
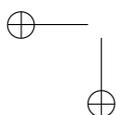


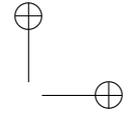
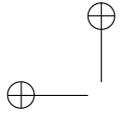


adversaries the rigidity of the one increases the rigidity of the other, relaxation, for reasons of fickleness, on one side could be answered by relaxation on the other. Conversely, since miracles happen only when they are least deserved, there exists certainly the need for a saviorlike figure who in the midst of all that blood and misery would offer guidance and relief. Nobody can be more aware than I am how childish and naive that sounds. But in times of confusion and helplessness the hopes of man can cling only to a wonder.

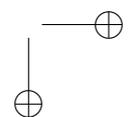
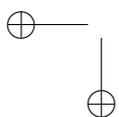
The best way, however, of getting out of a labyrinth is not to take cognizance of one's being in one. Life has become so complicated to the individual, bombarded by distracting noises and subjected to insidious manipulations, that he is unable to break out of the ring formed by corrupt politicians, brainless generals, war-mongering scientists, avaricious corporations, and the vile opinion industry serving them. Only the young, I believe, before they have entered the Devil's circle of permanent jobs, retirement funds, mortgages, installment payments are still to a certain extent immune against the sweet poison of conformist indifference; only they still possess a mind to protect, a heart to keep unsullied. A critical mass of no-men could shatter the labyrinth.

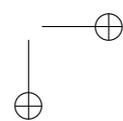
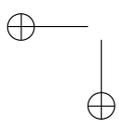
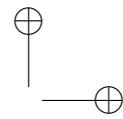
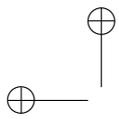
My willingness even to conceive of the possibility that such a thing could happen comes from one reflection. We live in extraordinary times. Probably for the first time in the history of mankind there exist mechanical devices that could effect an almost simultaneous worldwide destruction of so large a proportion that the survival of the species is in doubt. Living in a unique period, I am willing to expect unforeseeable unique events. What

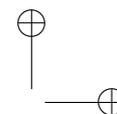
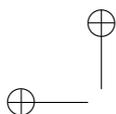




form salvation could take, who can say? But I believe, at least on the even days of the month, that it will come.





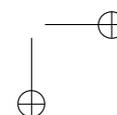
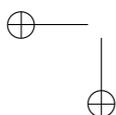


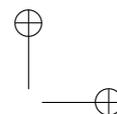
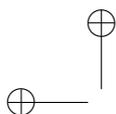
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MASS MEDIA

The phrase “the mass media” is particularly dear to me for it has shown me the power of a word where there is nothing else. I am, of course, thinking of “word” in its most unexalted sense, not of the *logos* conjured up so sublimely in the first verse of the Gospel according to St. John. Of that term, “the mass media,” I would say, although lexicographic evidence may be against it, that it has created the masses rather than being created by them. In the old days there were people or men and women, now there are masses. People produce, masses consume; people build, masses destroy. Whereas only a single mind can create, many people enjoy the product; masses have to be told to acclaim it unseen. There is a demonic, demiurgic power to words and to slogans that is not often appreciated.

None of the other languages known to me possesses as copious a source of information about the growth and decay of words and concepts as does the English language. I am referring to the great *Oxford English Dictionary* with its inexhaustible supply of examples and applications. The designation “the masses” which, in the sense considered here, became naturalized in the first third of the last century, has an eminently elitist ancestry, reaching back to the Latin *plebs* and *vulgus*. The amorphous heap of a numberless humanity, groveling

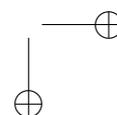
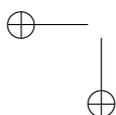


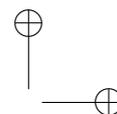
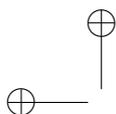


and growling, offended nose and ear of the well educated. “Odi profanum vulgus et arceo” (I hate the common crowd and I keep it away), wrote Horace. The well-known ancient slogan “Panem et circenses” (Bread and Circus) stands for the direct precursors of the rock concerts in Central Park, although the bagels, I presume, are no longer free. Such English adjectives as *plebeian* or *vulgar* testify to the durability of the tradition of contempt. To the rich, the poor have always stunk, and, consequently, my thesaurus offers *unwashed* as one of the synonyms of *plebeian*.

Before the masses entered the arena of history, probably as a consequence of the French Revolution, but also of the industrial revolution, there existed other designations, for instance, *multitude* and *mob*, the first probably less disparaging than the second. Once the mass or the masses took over, a bifurcation of the sense in which these words are used became noticeable. Such phrases as the *working masses* or *mass production* convey a different shade of meaning than do, for instance, *mass taste*, *mass psychology* or *mass medium*. One emphasizes the power that goes with size, the other the vulgarity. Or to put it differently: if the one says “Here we can sell a lot of doughnuts,” the other replies “But doughnuts are less exquisite than croissants.”

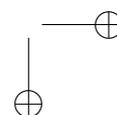
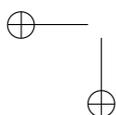
If I can trust my dictionary, *mass medium* was first used in 1923 as part of the advertising jargon, as was to be expected. The designation comprises newspapers and magazines, broadcasting, and television. Bizarrely enough, the products of those industries cannot normally be enjoyed or consumed by the masses in the aggregate; those are much rather first fragmented by them into

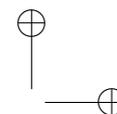
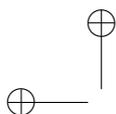




individuals or very small groups who are then again welded together by the uniformity and accessibility of the offerings. That is why the mass media may be regarded as devices not only for the ascertainment of the lowest common denominator of taste, morality, and understanding, but for its production. They are machines bringing about a continual lowering of the averages. The peculiar thing about human life is that, while there may be peaks that cannot be surmounted, one can always fall deeper. We begin at the outer edge of Purgatory and end in Hell.

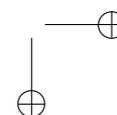
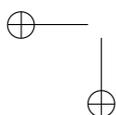
I know many people who, besides listening to the radio, spend at least three hours a day before the television set. That means that they spend nearly one month and a half in a year on this form of amusement. If they do that for fifty years, they have expended six and a quarter years of their lives sitting before that box, imbibing more or less complete rubbish. The argument that most of those people would not have known what else to do is invalid, as we do not know what they could have done. Some of them might have committed murders (they do that anyway, only outside of the prime hours of broadcasting), others might have created masterpieces; all of them would have grown old in greater dignity. Our times have made us all into spectators: we watch us voting for those we have watched, we watch us being governed by lighthearted thoughtless authority as if everybody's life were a badly put-together serial. The oily, grinning slapdash that fills the screens, claiming to have been elected to govern the people, they all seem in their youth to have been extras in a film depicting the court of Louis XIV.

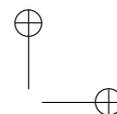
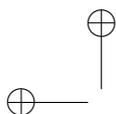




For an entire numerous population life has become an interminable bad movie that does nothing but exhort them to have more, to buy more, to consume more, to long for what they cannot afford, to take in for what they lack space. Still, were one to say that the mass media are the ultimate tool for the dehumanization of the masses, he would get the reply that he had a wrong idea of humanity, that what was wormwood to him may be honey to others.

In any case, although I do not own a TV set and can compete with Horace in conceited arrogance, I am myself a reluctant victim of the mass media. I have a small radio, and every morning, while I shave, I listen to the news, so as to get my fill for the day. Receiving my ration of crimes, catastrophes, and lies from a station which belongs to a large newspaper, one mass medium being owned by another, I listen to the newscast which interrupts occasionally the neverending flow of advertisements. As a man of punctual habits, each day I hear the same insipid enticements, particularly one designed to trap me into subscribing to a monthly peddling news about science. "Name a more important magazine," entreats the unctuous voice, dripping with insincerity. Most of the times protective mechanisms operate, and I do not listen; but if I do, deeply impressionable as I am, my day is ruined. I go out and can do nothing but name more important magazines. Walking through the desolate streets of New York, do I see the homeless, prostrate near the steam vents to warm themselves, do I see the dead rats, do I hear the mad soliloquies of the passersby? No, my brain is engaged solely in naming

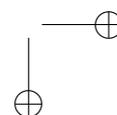
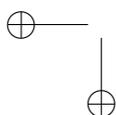


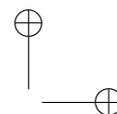
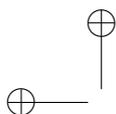


more important magazines. It is confused, for there is no end.

Where should it begin? With the *Acta eruditorum* or with Addison's and Steele's *Spectator*? With Schiller's *Horen*, the *Revue des deux mondes*, the *Mercure de France*, the *Neue deutsche Rundschau*? Where should it end? With *Criterion*, *Horizon*, Mencken's *American Mercury* or the *Partisan Review*? Of course, many more names come to mind than space here allows. I come home exhausted, no work done, only a useless refutation of what was never meant to be taken seriously. And I come to the conclusion that the principal quality of modern advertising is its complete shamelessness. The better sort may do it with a certain amount of folksy humor which they learn in copywriting courses. But I should have thought that also the double tongue in cheek ought to repel even the most unsuspecting of half-wits. That it does not do so is the miracle wrought by the mass media.

The advertisements in the newspapers and the magazines you can leaf over and only your hands are made dirty. But the announcements on the radio and television insinuate themselves into your consciousness, unless you muster the strength to turn them off. Between the "Goldberg Variations" and the chromatic shudders of the overture to *Don Giovanni*: there comes a clown who admonishes you not to leave home without a certain credit card or exhorts you to reach the top and even a little higher. There is no escape: if you want Bach, you must drink the lie of the day. What happens to people who endure that acoustic, visual, and moral torture for their entire lives? The answer is that they have long

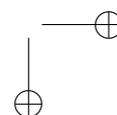
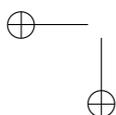


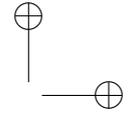
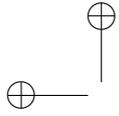


ago ceased to regard that inescapable bubble bath of untruth, hypocrisy, and exaggeration as a torture; they could not live without it. For very many the television advertisements are the only glimpse of a better life that they will ever have. That this better life is a make-believe life, undesirable and unrealizable, does not concern them. The Fata Morgana, undoubtedly named after Mr. J. P. Morgan, which the opinion industry has constructed for them is the only thing left of the fairy tales which their grandparents still may have listened to as children.

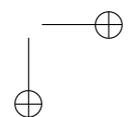
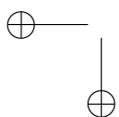
If there had been mass media in France at the time of Louis XVI, there probably would not have been a French Revolution. The king would have given the people a five-minute speech every Saturday, and it would have been a better speech than we get now, since they had more gifted hacks in the eighteenth century. The principal effect of the mass media is that they numb the primordial human drives. The readers, listeners, viewers are desensitized; they no longer care what slogan is offered, as long as it is a slogan. "A chicken in every pot," "a TV set in every hovel": they go back to their pots, and there is no chicken; they go back to their hovels, and there is a TV set, jabbering colorfully. If their sons are killed in senseless wars, they may even themselves be on TV, weeping proudly. Phrases are no longer empty in our time: whenever they are punctured, out comes real human blood.

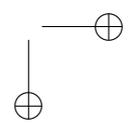
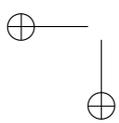
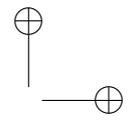
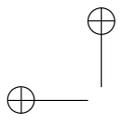
It would be wrong to conclude that I consider the mass media as the cause of our misery. We live in circular times: every cause is a symptom, every symptom a cause. In the end, we may blame the Devil. There are categories, however, some more eternal than others: the rich and

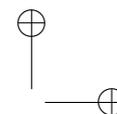
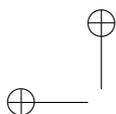




the poor; the mighty and the oppressed; the young and the old; men and women. Faced with the dialectics of a terminal catastrophe, does it still make sense to remind them of their common humanity, and to say that their final fall may not be followed by a spring?





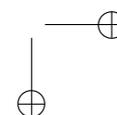
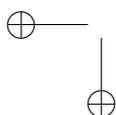


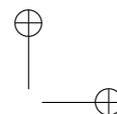
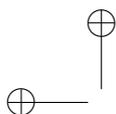
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MUSEUMS

We live in funny times. Some time ago, I read somewhere of a remarkable proposal. It was suggested, I forget by whom, that the museums in America divest themselves of their collections by selling them to the “private sector” and offer instead, for view by the public, reproductions. The only original left thereafter hence, will be the man who devised this interesting scheme, perhaps as a way of financing President Reagan’s star wars. The suggestion itself was, of course, one of those shameless propositions, half tongue-in-cheek, half devil-may-care, that help to maintain the old legend of the land of unlimited possibilities. The media require endless chatter, and the suppliers are paid with the devil’s coin: publicity. All we can do to combat the nefarious noise is to forget those windy names as quickly as they are brought before us.

So far as paintings are concerned, I can see one advantage: reproductions have stronger, albeit very wrong, colors, and one can take them home without committing a felony. Maybe the begetter of the idea had an ulterior motive, namely, to point out the elements of absurdity that inhere in our present way of dealing with, and in, works of art. To a people uncertain in taste and devoid of a sense of history, the outstanding characteristics of the lover of art must appear to be pretense and snobbery.

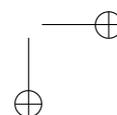
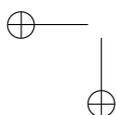


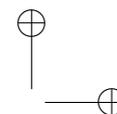
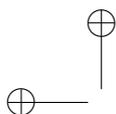


In any event, I thought it was high time to hurry to the Metropolitan Museum of Art and to take a long and provisionally nostalgic walk through the beautiful galleries. There was the usual carnival atmosphere, hordes of people, babies in strollers, school classes, for they had one of those blockbuster exhibitions; whether Tutankhamen or Caravaggio made no difference, the drums of publicity had beaten long and loud. In the shops there was a brisk business in tinsel made up to look like eighteenth dynasty pharaonic. But the halls housing the permanent collection of the museum were quiet and empty: the visitor could inspect the paintings undisturbed, and those were, we hope, still the originals.

It must have been different a hundred years ago, but now the American museum collections are of a remarkable quality, monuments not only to the great riches of the erstwhile private collectors, but also to their civic-mindedness. From the ancient dynasties of Europe who in their time also amassed great treasures, the people had to take them by force. The Habsburgs and the Bourbons had been especially great collectors, in their own lands, Austria, Germany, France as well as in Spain and in the Netherlands. In the eighteenth century they were joined by the Romanovs and by the English Crown and nobility. In addition, the Vatican and many of the Italian houses, the Medici, Sforza, Este, and so on, had formed marvelous, if geographically more limited, collections.

Every visitor to Vienna, the city where I grew up, will remember the two huge museum buildings opposite the Imperial Castle and, in between, the monument to the Empress Maria Theresa: on one side “das kunsthistorische Museum,” on the other “das naturhistorische

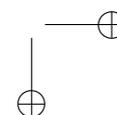
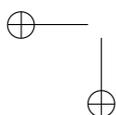


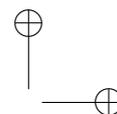
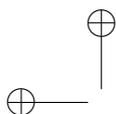


Museum.” The Museum of Natural History slept the sleep of dust and bones, not only for me; it could not compare with its namesake in New York. But the art museum was unimaginably rich. Anyone who wants to see what a great painter Pieter Breughel was or how wonderfully Velazquez could keep alive the lovely young princesses of Spain must come to Vienna. The contemporary taste of Renaissance and Baroque Europe is unusually well documented, for which reason you will find nothing, for instance, by Greco; and pre-Renaissance painting is also very poorly represented. The European museums, in contrast to those of America, have little money for new acquisitions and cannot follow changes in taste. The one in Vienna is rich in works that were highly prized at the time of their creation: Titian, Tintoretto, Rubens, Rembrandt, van Dyke; but its one great Vermeer, “The Artist’s Studio,” was obtained only after the Second World War. Adolf Hitler had taken the painting from a private collection (how, I do not know); it was to serve as the centerpiece of a new museum which he planned for Linz, in honor of his mother, Mrs. Schicklgruber.

How peaceful and tranquil the museum was in my youth. The malignant infestation of mass tourism had not yet occurred. The occasional guards, mostly old veterans, all looked like Emperor Franz Joseph: they wore what in Austria was known as the “imperial beard.” Often there were more copyists than visitors; the rather insipid productions of the Flower Breughel were particularly popular.

What prompted these reminiscences was the suggestion mentioned at the beginning. That color prints are no substitute for paintings on canvas, wood or, as in the

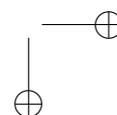
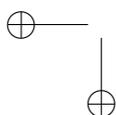


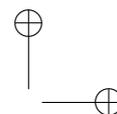
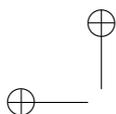


case of say Toulouse-Lautrec, on cardboard is obvious. The difference in materials and surface would alone be sufficient to rule them out. But then I asked myself: suppose that technical ways be found to reproduce works of art or, for that matter, autographs and so on in such a manner as to render the copies truly indistinguishable – would it be the same for the observer? My answer would be no. In saying that I realize that elements of snobbism and even mysticism enter into my decision. You could also call it, however, a sense of history and a feeling for the numinous, the mysterious, in human life and spiritual creation.

We are often told that ours is the epoch of an explosive growth of information. Everything that can be seen, heard, or remembered is now a bit of information; it can teach us something if we know how to ask the computer. Learning is, however, a very complex affair: what we can learn from, say, a table of molecular weights has no overtones, as it were; it is strictly information, and maybe sometimes incorrect information. Not so with a Mozart trio, a Keats poem, the ceiling of the Sistine Chapel. Although they all contain an element of transferable information, this is not the essential part of their uniqueness. They appeal directly to what previous centuries would have called the human soul. (Psyche, on the other hand, the term now common, is, so to speak, the technically reproducible replica of the soul.)

Nowadays, poetry goes directly from the producer to the deconstructionist in the English Department, omitting the reading public, just as the work of art goes straight from the artist to the dealer and the investor. What kept the arts alive in olden times and made the ge-

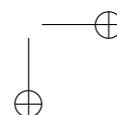
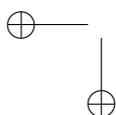


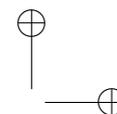
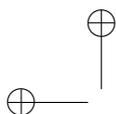


nus into a proof of the existence of God has disappeared. There is no public any more, only consumers. To the hasty consumer, interested merely in rapid information transfer, a color reproduction of a work of art may be more useful than the work itself. But museums are more than that: they are not only repositories of information.

The present lines are, however, not concerned with the information content of a work of art, let alone with that of a manuscript or of other documents, but with the circumstances in which those can be considered genuine, authentic. One such circumstance, and perhaps the most important one by objective standards, is the uniqueness of the work. There can be only one Mona Lisa, and even if Leonardo da Vinci had wished to repeat himself, the second portrait would have been distinguishably different. The famous old saying “Duo non faciunt idem” (Two do not make the same) may be, entirely non-paradoxically, reduced to the statement “Even one does not make the same twice.” But one machine could make the same not only twice but by the hundreds. A factory turning out large numbers of exact copies of, for instance, Michelangelo’s *Pietà* would, however, not be producing masterworks, but religious kitsch.

The impression that we receive from a work of art, created uniquely by the artist, is heightened by the certainty that it possesses a degree of perfection that no imitator could have conferred on it. A portrait by Frans Hals or by Goya, a still life by Cézanne are unrepeatable events. One could say that their value is composed of aesthetic, historical, and sentimental factors. It is to the last of these elements that the fluctuation in the cash value of works of art in different times must be





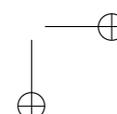
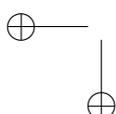
attributed. To what else than fashion can it be due that in their time a painting by Bouguereau or Meissonier was so much more highly prized than one by Manet? Remembering how highly French Impressionist painting is esteemed now, one is surprised to find the following entry in the celebrated diary of the Brothers Goncourt.

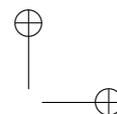
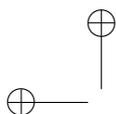
January 19, 1884. What a joke, what a joke this Manet exhibition! Such a hoax makes one angry. Whether one likes Courbet or not, a painter's temperament must be acknowledged in him, whereas Manet is only a manufacturer of colored picture-sheets.

Edmond de Goncourt wrote that nine months after the horrible death of the great painter.

The taste of our time admits an unusually extensive array of styles and periods. Everybody, from Vermeer to Christo, from Donatello to Segal, appears to be welcomed to the same pantheon. This is probably a bad sign: great works of the mind are no longer disturbing, provoking, moving; they have become documents of equal informative value to the specialist or units of investment to the speculator. The intellectual courage of contemptuous disapproval and enthusiastic acceptance, which still existed in my youth, has disappeared.

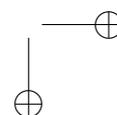
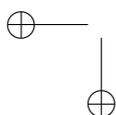
There are instances in which it is difficult to speak of the uniqueness of a work of art. Woodcuts preceded the invention of the printing of books, and in their case as well as in the later ones of etchings, mezzotints, and lithographs, if the notion of the original is to be maintained, only the prints produced by the creator himself or under his supervision may so qualify. When that excellent writer, Walter Benjamin, wrote, in 1936, a much discussed essay on "The Work of Art in the Age of its

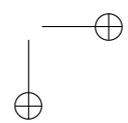
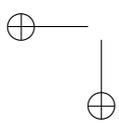
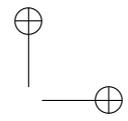
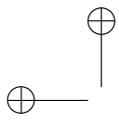


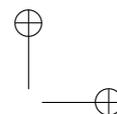
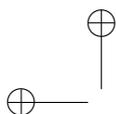


Technical Reproducibility” he devoted most of his attention, in fact, to examples which did not pose the problem of the original: prints and films. Arguably, the most authentic artists of our time, practicing in a medium in which the “original” could claim only sentimental value, are the photographer and the filmmaker. The materials in which they work are, unfortunately, brittle and transitory, and whether, despite their apparent reproducibility, their works will last as long as those produced in the past by other means is doubtful. As is true of all worthwhile human endeavors, much more will be lost and forgotten than remembered and preserved.

We know of many works of art and literature that are demonstrably lost. What we do not know is how much was not even produced though it could have been under other, more favorable circumstances. As concerns the creations of the human mind, the prevailing taste of a period is not only a tyrant and a slave driver, it is an abortionist. There will always be a few, sufficiently strong and courageous, or skillful enough, to go against their times, many more will give up. This exclusionary effect, exercised by that mysterious power called society, has become particularly overpowering in our time; one could say that a mechanism has been developed that makes the appearance of geniuses well nigh impossible. Great gifts have often been a curse to their possessors. The wasteland of scorn and derision was no less bitter to a van Gogh in his time than it would be now. But I cannot help feeling that something essential has changed as if the soil in which the human mind could grow and flower had been poisoned irreversibly.





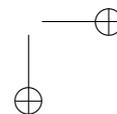
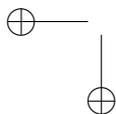


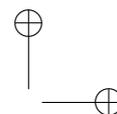
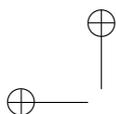
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NATURE

One could divide people into two classes, according to whether, in using the word *nature*, they include themselves in, or exclude themselves from, this term, that is, whether they see themselves as part of nature or as confronted with it. At present, I should think, the second group will, at least in the so-called advanced countries, predominate. If this choice could have offered itself at all in the past, I am convinced that an entirely different distribution of the two groups would have been found.

Actually, only in the last three hundred years or so could such a division have been performed, for, despite the venerable ancientness of the word, it carried mostly other connotations, for instance those conveyed by such phrases as “the evil nature of man.” In both the Greek word *physis* (from *phyein*, “to bring forth”) and the Latin *natura* (from *nasci*, “to be born”) the quality of emerging, of growing, is stressed, and the first meaning of the words may very well have been “essence.” The title of the great philosophical poem of Lucretius *De rerum natura* (Of the Nature of Things) carries that meaning. The Latin word entered all European languages, with very few exceptions, in the early Middle Ages, at first mostly in the senses of essence, type, or character. Another meaning that *nature* acquired early was that of the forces directing and maintaining the universe, the executive arm, as it were,

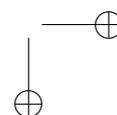
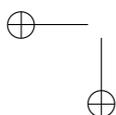


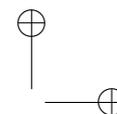
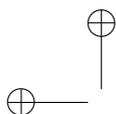


of the Creator. But if we say of somebody that he loves nature, we introduce the sense with which the present reflections will be concerned; a sense for which there is little evidence before the time of the Renaissance.

In his book *Keywords* Raymond Williams says of the word nature that it is perhaps the most complex word in the English language. This may be so, but it is, in its many meanings, certainly not the most troublesome word; here, the crown probably goes to *man*. It is, however, true that *nature* has many, not always clearly demarcated, uses. For instance, in *Dr. Johnson's Dictionary*, first published in 1755, there are thirteen definitions, but none that corresponds to what most people now have in mind when they use the word. In the great *Oxford English Dictionary* there are even more definitions, one of which reads as follows: "The material world or its collective objects and phenomena – especially, the features and products of the earth itself, as contrasted with those of human civilization." The first quotation illustrating this use is assigned the date 1662. The definition accepts, presumably, the anthill as part of nature, but not the Empire State Building. Mother Nature, as she used to be called in quieter times, has finally weaned her favorite child: Man is now outside, looking at nature.

The fact that a certain word acquired a certain connotation at a certain date does not, of course, mean that the complex of ideas and ideals conveyed by that word did not exist before. But the emergence of a novel application of an old word shows that the necessity of expressing that particular sense has become more intense and more frequent. Dictionary dates are necessarily always somewhat arbitrary and fortuitous; but it may be



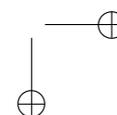
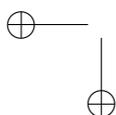


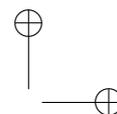
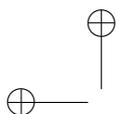
useful to remember that the extension of meaning of the word *nature* that I am considering here took place in the seventeenth century, at the time when man detached himself from nature and modern science began.

When Sir Thomas Browne wrote *Religio Medici* (first published in 1643) he sometimes used the word nature in a way that shows the appearance of the new sense. For instance, in Part I, Section 16:

Thus are there two bookes from whence I collect my Divinity; besides that written one of God, another of his servant Nature, that universall and publik Manuscript, that lies expans'd unto the eyes of all: those that never saw him in the one, have discovered him in the other. . . . I hold there is a generall beauty in the works of God, and therefore no deformity in any kind or species of creature whatsoever: I cannot tell by what Logick we call a Toad, a Beare, or an Elephant, ugly; they being created in those outward shapes and figures which best expresse the actions of their inward formes. . . . To speake yet more narrowly, there was never anything ugly or unshapen, but the Chaos. . . . Now nature is not at variance with art, nor art with nature; they both being the servants of his providence: Art is the perfection of Nature: Were the world now as it was the sixth day, there were yet a Chaos: Nature has made one world, and Art another. In briefe, all things are artificiall, for Nature is the Art of God.

This was written, not accidentally, at the time when the first great flowering of landscape painting occurred in Europe. Incidentally, in the same chapter Sir Thomas reproves the Christians, because, in contrast to “the Heathens,” they “disdain to suck Divinity from the flowers of nature,” a reproach certainly not applicable to the great flower painters of Holland.

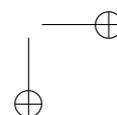
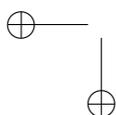


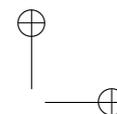
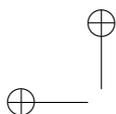


Nature as Subject

Long before a concept of nature could have developed, men must have perceived the motions of sun, moon, and stars; the flowering and wilting of blossoms; soil and air, forests and meadows, all full of animals; the sands in the deserts; the rocks and the rivers; the sources and the sea. Dangers everywhere, and soon the greatest: fellow man. All was movement, growth and decay, leaving and returning, but not all returned. When the leaves took leave, they came back, and so did the seasons; but often men lay on the ground, and they were not asleep. The slowly awakening consciousness had to register regularities, recurrences, irreversibilities; and only then could a system of classification begin forming for which the mind had to use or misuse words that it took out of, or put into, language. There is no question that at that time, and for a very, very long time to come, man formed part of what we now call nature. A fearful deracination had to occur before he could begin to view nature from the outside, as we do now, as spectators, admirers, exploiters, investigators.

The Book of Genesis is, however, definite: first nature was created and then, on a separate day, man. Other creation myths fail to commit themselves. The Greeks, so eloquent about the origins of their gods and their godlings, must have had a surplus of nymphs, placing a naiad in every body of water and a dryad in every tree; but their sparse and confusing tales about the origin of man and animal led to no consensus. Local patriotism, I suppose, induced Plato or whoever wrote the dialogue *Menexenos* to have the first human beings grow out of

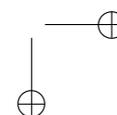
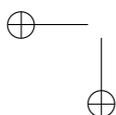


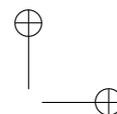
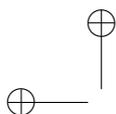


Attic soil; other localities did not wish to stay behind, and the outcome was rather messy. In any event, the Greek word for *nature*, *physis*, has several meanings, but none, so far as I can see, that signifies nature in the sense in which I am discussing it here.

Literature and art, as they have come down to us, are perhaps the best indicators of changes in consciousness and attitudes. I assume that, as nature becomes increasingly objectified, this will express itself in the heightened individualization with which it is represented. So far as sculpture is concerned, it is easy to follow the ever growing characterization, as one goes from the idealized portraits of the classical period to the sharply individualized faces of Roman portrait busts. The most conclusive examples would be in landscape painting, but we lack the material, except for a few late Hellenistic and Roman pastiches and copies. What little I have seen strikes me as indistinctive staffage and composite decoration and not as the image of an actual scenery existing in nature. The same is, I believe, true of ancient literature, so far as it has come to my knowledge. One cannot say that in the eclogues of Theocritus or Vergil nature is depicted with anywhere near the breathtaking immediacy that we find in a poem of Wordsworth or John Clare or in a painting by Constable. Instead, the lovely shepherds and shepherdesses in appositely pretty surroundings, with the necessary complement of bushy tree and gamboling lamb, appear to be designed for the tired businessman. That some of these works are great poetry in many respects is surely beside the point.

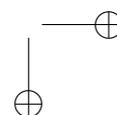
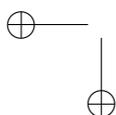
The recognition of the unique features of the human face, achieved by the Romans, was a gift lost by sub-

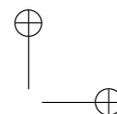
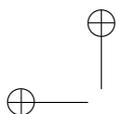




sequent centuries, until it was matched again by the great Netherlandish and Italian painters of the early Renaissance. But even in the magnificent works of a Jan van Eyck, Hugo van der Goes, Antonello da Messina, or Piero della Francesca the landscapes, often forming the background, lack individual character. The scenery is typecast for the principal iconographic purposes of the work. But a little later, around the middle of the sixteenth and the beginning of the seventeenth centuries, one can speak of true landscape painting, nature stepping into the foreground, as it were. Albrecht Dürer in his watercolors and Pieter Breughel were among the earliest. In the course of the subsequent generations, with Claude Lorrain, Ruisdael, Hobbema, Rembrandt, the depiction of scenes of nature in their characteristic uniqueness became the rule. What the eye sees and what the mind explores are seldom the same or even related, but I consider it significant that the seventeenth century, when the pictorial representation of nature reached its first peak, was also the period when the scientific investigation of nature began.

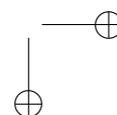
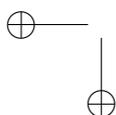
Literature was much slower than painting. If it were only a matter of description, this would not be difficult to understand. Words are not very good when they compete with our senses: a problem with which Lessing struggled in his *Laokoon* without coming to a clear decision. Poetry is not, in the crudest sense of the word, a descriptive art, but neither is painting, if it is to deserve that name. What even the slightest sketch of a Rembrandt or Goya can convey to us is much more and much less than we get from the illustrations of a mail-order catalogue. Were I to look at Mont Ste. Victoire, I should see at best what

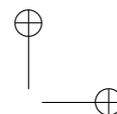
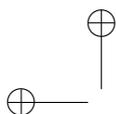




a camera sees, but Cézanne's strangely and gloriously integrative eyes not only saw more, they saw something different, something that he perhaps could transmit to me in part, but that I could never have perceived on my own. Whether the artist's emotion can "infect" the viewer's sensibility (Tolstoi's only criterion of a great work of art) will nowadays, unfortunately, very much depend upon the viewer. We have become very impervious.

In any event, only in the last third of the eighteenth century does a feeling for nature begin to make itself noticeable in poetry. As always, there are precursors, some in unexpected places. For instance, in the most remarkable letters of the Marquise de Sévigné (who died in 1696) there are many signs of a real love of nature, and not merely of the picturesque. The accounts of her lonely walks in the woods on her estate in Brittany or in the park of the abbey of Livry breathe, prematurely, a downright romantic feeling. But nature poetry of the "infective" kind was slow appearing. In the English language this happened, perhaps, with Thomas Gray and William Cowper, though only tentatively, and a little later, unquestionably, with the Lake poets and even more in the remarkable poems of John Clare. But in order to convince ourselves "That Nature is a Heraclitean Fire," as G. M. Hopkins says in the title of a celebrated sonnet, in order to share the shuddering adoration of an almighty nature, in its beauty and cruelty and inexhaustible richness, we must turn to German poetry. Between 1780 and 1830, during its classic and romantic periods, German poetry established a virtual monopoly in the branch of literature that we could call nature poetry, with such names as Klopstock, Goethe, Claudius, Hölty, Hölderlin,





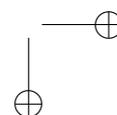
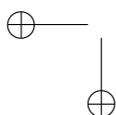
Eichendorff, Mörike, Lenau. In France, only Paul Verlaine deserves to be mentioned in that company, and he was much later, being born in 1844. One of the greatest French poets, Baudelaire, is, incidentally, on record as not being able to stand the sight of trees.

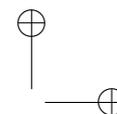
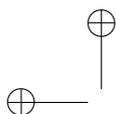
The word *nature* to designate the matrix in which man exists and suffers as temporary occupant seems, hence, to be a creation of the seventeenth century. The growing awareness of the power and the beauty of nature found its expression first in painting and only later in poetry. What was, one might ask, the role of the sciences?

Nature as Object

In ancient times, when human beings could not but consider themselves as parts of nature, science in our present sense, that is, natural science, probably did not exist at all. For the observation, not to speak of the study, of nature to occur, a certain detachment, a distancing, had first to take place. Nature does not explore nature; life does not explore life. Not that the exploration of nature would have presented itself as the immediate task; it would much rather have been the observation and the description of remote phenomena. Thus, astronomy was probably the first exact science, practiced long before the concept of science as such had been formulated. (Mathematics may have been earlier, but I do not consider it a natural science: the mother of many kings is not necessarily a queen.)

Mathematics, astronomy, physics, geography, very little and relatively poor biology, and almost no chemistry:



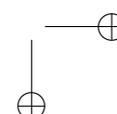
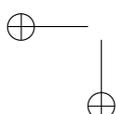


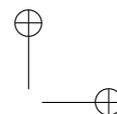
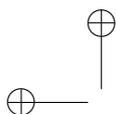
these were the way stations of ancient science. Their history makes very unexciting reading, were it not for the few bridges which connect them with philosophy; and that is true not only of antiquity. Scientists, like actors, leave but their names behind. Their ephemeral achievements have been digested and discarded, and the histories of science read like catalogues of spiritual excrements.

Be that as it may, we have all been taught that real science, one that we could still recognize today, began around the year 1600. The date is, of course, highly approximate, but the fact that both the concept of nature, in the sense under discussion here, and the modern experimental sciences appeared in the seventeenth century is, I should like to suggest, not a fortuitous coincidence. For man to undertake the scientific study of nature he had himself to become denatured. Nature turned into a challenge, an adversary, the object of a mental hunt.

This is not the customary way of accounting for the beginnings of the exact sciences. We are told that they began as a branch of philosophy, “natural philosophy,” at a time when the mind of man became curious about the wonders, the miracles of nature. Curiosity, though, is not a very noble passion, and the first reaction to a miracle used not to be the urge to take it apart. This is precisely the feature that distinguishes science from natural philosophy: the replacement of certainty by probability, and often only by plausibility; the substitution of the experimental shredding of nature for the meditation about nature as an awe-inspiring whole.

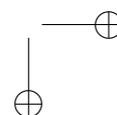
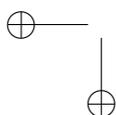
Objectification must lead to diminution and fragmentation. The “Heraclitean Fire” has become a collage of

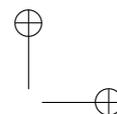
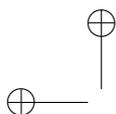




ever-changing hypotheses, dogmas, and models. If you hear somebody say “I love nature” or “I feel happy only in nature,” this cannot refer to the object of the scientist. And when Rousseau exclaimed “Back to nature!” what was the nature he had in mind? Again another one? Of course not, it is always the same nature in whose midst we live. Yet, the nature lover had a lyrical view of nature, Rousseau a mythical view, and the scientist? Whatever a natural scientist investigates he calls nature, whether it is an oil–water interface or the lead content of a mummy. We may conclude that nobody is more remote from nature as a seething reality than the scientist, at least as long as he sits in his laboratory.

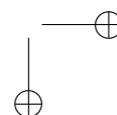
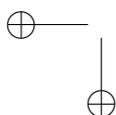
Can one think of an alternative to our present way of investigating nature? I think one can, but such an attempt is not easy to describe. We are all standing on this side of a high mountain wall, not knowing what it looks like on the other. One thing I could say is that an alternative natural science would have to be an alogical (not illogical) endeavor and it would probably be deductive. It will be objected that I am advocating a return to pre-Socratic science. That would, of course, be neither possible nor desirable. There are no ways of ever returning. I am merely answering a question that I am sometimes asked. With the onset of writing, mankind lost the priceless gift of oblivion, and it is precisely the function of the sciences not to let us forget. The Greek myth of the river Lethe whose waters made the drinker forget the past was a profound myth. Only the dead could drink of it. Can there be a river Lethe for the living?

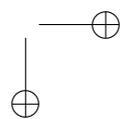
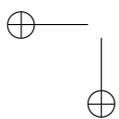
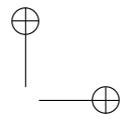
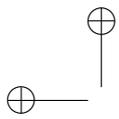


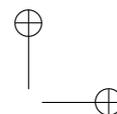
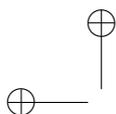


As I said before, it is the purpose of the sciences to keep us from forgetting. “Forgetting what?” someone may ask. The answer is: truth about nature, for that is what the scientist claims to be searching for. It is, however, a truth with a very small T, a highly forgettable truth; every thirty years, and now often every five, many scientific truths are replaced by new and truer ones. We may conclude that the noun *truth*, which has a plural, and the adjective *true*, capable of a comparative, cannot be what the search originally set out to find. There is, in fact, something paradoxical in the term *scientific truth*. We are taught by philosophy that a scientific theory is only true as long as it can be untrue. In contrast to phlogiston or the double helix Michelangelo’s *Pietà* is not “falsifiable.” Should a hasty debater object that some most important scientific theories, for instance, Darwinian Evolution, also are not falsifiable, I should not hesitate to reply that those theories also were works of art, to be honored for their aesthetic qualities.

I must end these reflections, for, in contrast to nature, the reader’s patience is far from inexhaustible, and I should like to end with a short parable. Once upon a time a man got to see an angel. Instead of falling to his knees the man ripped a button from the angel’s garment and began to analyze its composition. He did that all his life and never came to an end. Now the man is dead and the button mislaid, but we are still analyzing its composition.





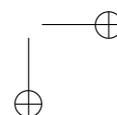
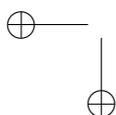


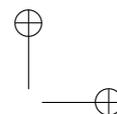
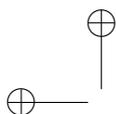
ORBITUARY

A bad thing deserves a good pun, or maybe even four: I was looking for a title that was both mortuary and spacecrafty or, to make matters worse, that combined sepulchritude and astronausea. *Orbituary* seemed ideal.

Incidentally, why are English-speaking people nowadays so contemptuous of puns and even of all verbal wit? They had not always been so. When the words were still full of linguistic juices, in the sixteenth and seventeenth centuries, the language bubbled with iridescent color, it juggled many balls at once, it focused the sparkle of many jewels. But then a blight fell on it. Was it the barren wind of utilitarianism that dried out the imaginative powers of association; was it because nobody had got rich by playing with words? Or were the speakers mutating gradually into word processors?

Even in the eighteenth century, when wit began to be displaced by its distant relative, humor, as sharp a satirical and polemical mind as that of Jonathan Swift amused itself by playing macaronic language games and by composing several treatises on punning. Today, however, any attempt to treat language as a lover (she is capricious, but has a heart of gold) encounters sheer revulsion. The only recent writer who would have understood what I mean is Vladimir Nabokov, and he came from far away. Word-play embraces, of course, much

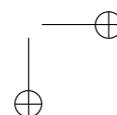
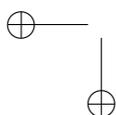


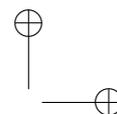
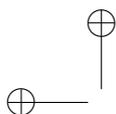


more than just punning, and the license to play, to flirt, with words must be earned, although life being too serious a business for anything but business, there are now few applicants.

There is a good reason for my unusual merriment, for inviting all those verbal centaurs and mermaids to frolic on the turf: my cabinet of atrocities, filled mainly with frozen embryos and parentless monstrosities, and occasionally with a high-placed gaffer's gaffe, has been enriched recently with a prize accession of another kind. A special vitrine has been reserved for that exhibit which is a marvelous example of American inventiveness at its best. The burial habits of the country have often been criticized by malevolent onlookers, such as Evelyn Waugh, who saw barbarism where there was only good old-fashioned cupidity. It must, however, have been evident to many people that, whereas several new and attractive forms of procreation and birth have lately been invented, the ritual of death has remained, boringly, the same since the ancient time when primitive man, in the exuberance of his newly acquired consciousness, first smashed the skull of his fellow primitive.

Innovation now being the watchword under which age-old corruption and sloth flourish, it was about time for the undertakers to translate themselves into entrepreneurs. And so an innovative sort of gravedigger came up with a novel form of interment which I hope you will permit me to call *inairment*. I suppose everything else was tried and found not to produce a sufficient cash flow. For instance, the trouble with cremation is that there always remains a residue which, when put into an urn, the bereaved must venerate and dust off every now and





then. Ancestor cult was never particularly strong in the United States. To such a mobile people as the Americans – here today, gone today – having to carry the forefathers along in the station wagon must have seemed a nuisance.

So why not combine cremation and rocketry, the more so since possession of the universe now is divided between California and Texas? Cemeteries probably were always an exalted form of real estate speculation, but for the time being and presumably for quite some time to come prime vacuum is still to be had in outer space.

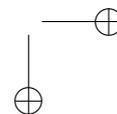
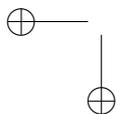
My information comes from two sides: an article by Wayne Biddle in *The New York Times* of January 25, 1985 (page A13) and one by M. Mitchell Waldrop in the magazine *Science* of February 8, 1985 (page 615). Here is the beginning of the report in *The New York Times*, with all names left out, however, since the shysterization of America, in my time, has been more rapid than its greening.

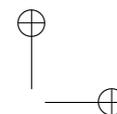
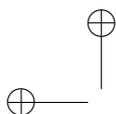
A group of Florida undertakers has joined with a former astronaut in the world's first commercial space venture, with plans to rocket human ashes into an orbit of the Earth.

The XX group of Melbourne, Florida, signed a contract with YY Inc., based in Houston, to fire a payload of cremated human remains into an orbit of 1,900 miles above the earth.

ZZ, one of the original seven American astronauts, is president of YY. He said the mission would cost about \$15 million and was scheduled for 1986 or 1987.

Each remnant from an ordinary cremation, I learned, will be reduced in volume by further heating (“Heat the hell out of them!”), so that it will fit into a capsule one centimeter in diameter by three centimeters long, which will be identified by name, social security number, and

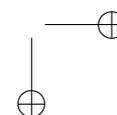
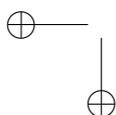


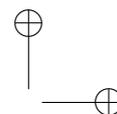
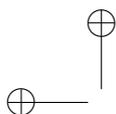


a religious symbol. The vehicle, accommodating 13,000 capsules, will remain in orbit for 63 million years. The “space mausoleum” will be covered with a reflective coat, in order to make it easy for the bereaved to discern their loved ones as they pass through the skies. The entirely unbereaved, the promoters of the attractive scheme, can, on the other hand, expect a very nice gain: with the mission costing \$15 million and a stated fee of \$3900 per capsule they will reap, grimly, about \$36 million of nearly clean profit.

The social security number is, I suppose, necessary in case the Internal Revenue Service wishes to pursue some postmortem claims. The usefulness of the religious symbol requires no discussion: how else would the concerned – St. Peter, Beelzebub, or whoever – know with whose capsule they were dealing? The appeal to the supernatural authorities seemed, therefore, quite natural; but what did the natural authorities have to say, the United States, owners of the unreal estate of the universe? A notice in the newspapers, dated February 12, 1985, set my mind at rest. A spokeswoman of the U.S. Department of Transportation said that the company, YY Inc., “has presented a creative response to the President’s initiative to encourage the commercial use of space.” The commercial use of the universe? “There he goes again!” A lifelong customer of the subway of New York City, making up about 0.2 percent of the world population, can only shudder when he considers what the outer space would look like after exploitation by the same brand of people.

I must, however, confess to a slight uneasiness with respect to the 63 million years that the space mausoleum

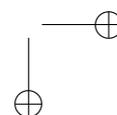
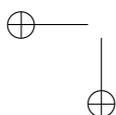


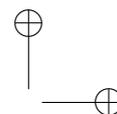
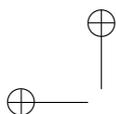


is promised to last. Will there be a warranty? What if it disintegrates after only 6 million years? Even undertakers, I suppose, giggle occasionally in their free time, but it seems that the American people as a whole have completely lost the sense of the ridiculous, if they ever possessed it. That being a sense, however, for which I seem to be programmed by a double set of genes, I find myself questioning also whether a vehicle cruising 1900 miles overhead (that is, about 10 million feet up) would be visible, blaze as it might. But maybe my informants had gotten a few zeroes wrong.

Be that as it may, it is the estimated duration of the senseless circuit that I keep returning to. Sixty-three million years is a long time, much too long to fathom. What does the baffled man do in such a case? He counts backward instead of forward. How did the world look 63 million years ago? I cannot even say I wish I knew, for I do not particularly want to know it. It is all the same to me. If I do not feel at home even now, I should not have liked it better then. That was probably about the time when the finishing touches were applied to the earth as we know it, although I cannot imagine the flora and fauna, nor the geographic and climatic features that then prevailed. Time estimates have been hopping around so madly during my life that I find it best to look for certainty in entirely different quarters. Science has always been surer of what is to the right of the decimal point than of what is to the left.

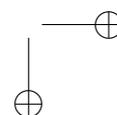
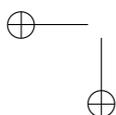
And 63 million years from now? Will there be human beings that would be recognizable to us, will there be an earth? These are not the questions I can ask, but one I can ask: what has happened to the people of America?

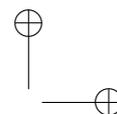
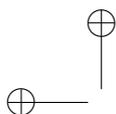




Have they really lost all reverence, all shame? No more bells tolling for them, no “Elegy Written in a Country Churchyard”? The “commercial use of space,” the mystique of “the private sector”: has the moral strength of the people waned to the point where they cannot but agree that all that can be sold must be sold? Man, so frail, so combustible, so transitory, had once created the Charioteer of Delphi, the Sistine Chapel, King Lear, The Marriage of Figaro, Patmos; he had measured the paths of the planets; he had erected the incredible edifices of mathematics, physics, and organic chemistry. Our time, I fear, excels only in reproduction and analogy: we do what has been done before, only more so. When we want to be original, we become sacrilegious. Mortuary rocketry, the commercial utilization of corpses, may well become the symbol of our times.

Amusement is a poor consolation for despair. Somebody will say that inairment is fun. Twenty years from now, on a dark night, he will look up to the skies and exclaim: “Look, here comes Aunt Emily! How she glows!”

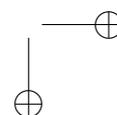
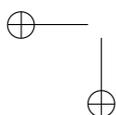


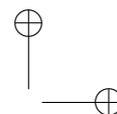
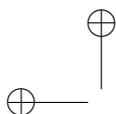


OTHERNESS

The unassuming adjective *other* has always had a strange fascination for me. That had actually begun long before I knew English, when the corresponding German word *ander* lent itself to many infantile meditations. Later I learned a few more languages, and as soon as I acquired a new bilingual dictionary I would look up this word and marvel at the exquisite shades of different meanings that the word could convey. For one who thinks, as I do, that language is the greatest gift conferred on humanity, the reading of dictionaries is instructive and exhilarating beyond belief.

The ancient languages, Greek and Latin, made a profound distinction between two meanings of the word, something that has been lost in the living tongues with which I am familiar. The Greek *heteros* and the Latin *alter* stand for the other out of two, whereas *allos* and *alius* signify the other out of many. In such a sentence as “We used to go downtown every other day,” the first meaning has still been preserved; it is frequent in the Authorized Version of the Bible. In metaphysics, and especially in ontology, the science of being, the concept of “otherness” has played an important role: the scholastics spoke of *alteritas*; in Plato’s *Parmenides*, *Theaetetus*, and *Sophist*, but also in some of the darkest passages of Hegel, many a dialectical hair is split.

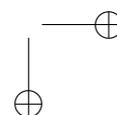
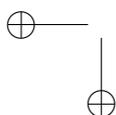


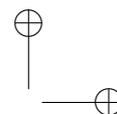
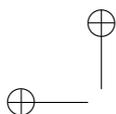


I could continue frolicking in linguistic meadows, brimming with vocabular juices, but this is not the purpose of my reflection. I got entrapped in darker regions, where the validity of the sentence “All people are equal” is annulled by another one: “All people differ from each other.” It is, hence, the territory where otherness is a synonym of the state of being different. This is a sinister territory, soaked with the blood of centuries. It has been traveled by many explorers, but the news they brought back give little comfort. In Sartre’s *Huis Clos*, depicting a hell with a human face, the punch line is “L’enfer, c’est les Autres,” “Hell, that is the Others.” Or, as I read somewhere in Roland Barthes, “One of the constant traits of every petty bourgeois mythology is the inability to imagine the Other. Otherness is the concept most antipathetic to ‘common sense.’”

There arise uncounted crowds of specters in blood and ashes, on crosses and pyres, in dungeons, concentration camps, and gas ovens, on gallows and scaffolds, but also in the shimmering corridors of righteous power. And as those billions of apparitions turn into a flutter of mist, I hear the shouts and the screams of unending multitudes applauding the expiation of the one unforgivable sin, that of otherness. Spartacus and his slaves, the Albigensians, the Cathars, the Marranos, Thomas Müntzer and the rebellious peasants, the Anabaptists, the Communards, and, in our egregious century, the Armenians, the kulaks, the Gypsies, the Jews, the Palestinians, and how many others! They were all other – other than who?

At the same time we know very well that we need the others in order to confirm ourselves. The tall need the short, the strong need the weak, the handsome need the



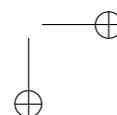
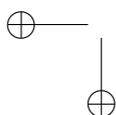


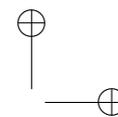
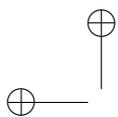
unsightly, the one needs the other. The glory and the misery of the world are sheathed with otherness. When criteria of difference are applied, the population of the world consists of billions of minorities: minorities of one.

Homo sapiens, being not excessively so, seems to consider his next one, each fellow being, as a caricature of his own glorious self. That irritates him, even if it does not always lead to outright hostility, especially if the poor replica of himself speaks the same language. In these circumstances he may be willing to join a pack, held together by their language, so as to exterminate the strangers, the aliens (both words, incidentally, derive from Latin expressions for the other, *extraneus* and *alius*). Thus, the North American Indians differed, regrettably, from English Puritans and the Ainu from the Japanese. Throughout history many great nations were thus made to disappear, not always by extirpation, with the strange exception of the Jews, who all too often had to assume the thankless and mysterious task of being the Primordial Other. They were truly chosen to be cursed.

English has enriched itself by a word that, I believe, has no equivalent in other languages, namely, the word *misfit*. Originally of sartorial provenance, the word soon found its evil niche as the designation of a person who is definitely not at home where he or she is. It is a convenient invective which can be spewed with impunity at all those who have been unable to dedifferentiate themselves with sufficient rapidity. "Wait, wait" the unfortunate cries, "how can I prove that I am the one, not the other?" He cannot, he is branded.

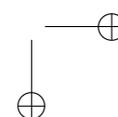
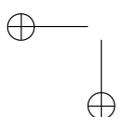
There exist professions whose otherness is officially recognized. We take it for granted that poets, painters,

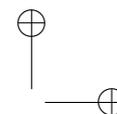
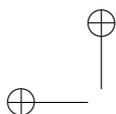




composers, and all those others whose activities seem to transcend rationality, as the common man understands it, will often be misfits. In our mercantile-scientific century this is no longer entirely true. Who could claim that a poet must be different from the publisher who sells his books? Or that poetry is incompatible with the insurance business? The examples of T. S. Eliot and Wallace Stevens come to mind immediately. In general, however, our time reserves for the practitioners of high imagination a fate worse than starvation: it makes assistant professors out of them. All ripples are smoothed, and soon the misfits are turned into fits, creating from nine to five.

Ripple smoothing is, in fact, the business of our time, "Don't make waves!" its slogan. If you suspect yourself of otherness, join the Elks.



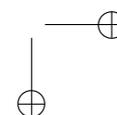
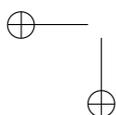


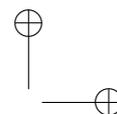
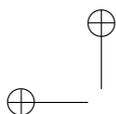
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PROGRESS

Is there such a thing? A meaningless question deserves a meaningless answer: yes and no. I do not know whether I am right when I look at the word *progress* as one of those words that present-day philosophy discusses under the name of essentially contested concepts, concepts whose very function consists in being debatable. This little book contains several examples of this type. Those words are of great value to acute (or chronic) loquaciousness, for they lend themselves to innumerable discussions in parallel whose convergence cannot be expected this side of infinity. They are riddles with too many ostensibly correct answers, which means, of course, that none can be entirely correct. Those words are actually traps rather than riddles; with the proviso, however, that the mice entering them do so in full consciousness of what they can expect, namely, to become mice with the right of tenure.

Consider the words *liberty* and *copper*. On the one side, an entire jungle of hair, split most sagaciously; on the other side, a few paragraphs, meager and sober, taken from mineralogy and mining, chemistry, physics, and biology. Copper, we may conclude, is not a contestable concept; even if we do not yet know all that will be known eventually about this metal, there is little danger that its meaning will ever be debated asunder. What is,

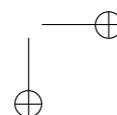
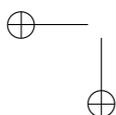


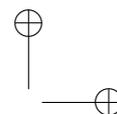
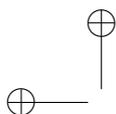


of course, possible to envision is a time when copper has become as rare as the unicorn, having been wasted by our technical witches.

In any event, *progress* is one of the worst offenders against clarity, having become encrusted with so many meanings, inferences, hopes, that it had to collapse. The origin of the word is, as such, quite unambiguous. The Latin word *progressus* comes from the verb *progredi* and signifies a gradual continuous motion from point to point. It could be said of a student as well as of a disease. I do not believe that, if Cicero said of somebody that he was progressing in his studies, this implied a guarantee against failure in the examination. An army, too, could make progress toward its complete defeat. In other words, the ancients had not concluded a contract with Fate or with their notoriously unreliable gods warranting that things were unfailingly to get better all the time. (For that matter, and as concerns you and me, have you even now seen a copy of such a contract signed by both partners?)

What the ancients understood perhaps better than we do, however, was that nothing stands still. Since the time of Heraclitus, and probably even earlier, the doctrine of eternal change was never forgotten. In that sense, unending progress was to be expected, but I do not believe that its direction was regarded as predictable. Nor do I think that the Christian message of salvation transformed human consciousness in that respect. It spread, on the contrary, the conviction that this world was the vale of tears. Even in the seventeenth century the progress made by Bunyan's pilgrim was through a world of travails, tribulations, temptations. In that

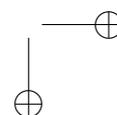
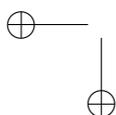


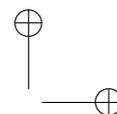
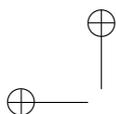


period, the time of early capitalism, the word did not yet exude the musty aroma of imitation lavender that it has in the mouth of an American politician of our days. The only upward progress that the pious pilgrim would have understood would have been that of the well-behaved believer from this world to the next. As religious belief diminished, the meanings of the word *progress* began to multiply.

Perhaps the first thing that happened was that progress became completely synonymous with advance. Most people will say that it always was, but for me there is some difference even now. For instance, I should find it easier to say “Mr. A’s fortune advanced” than “Mr. A’s fortune made progress.” There can be advances in the amenities of daily life, in cleanliness, in table manners, in public politeness. In other words, that civilizations can advance is doubtless. (Whether this is also true of cultures I would question.) Taking a tiny part for an enormous whole, one concluded that these often partial and limited advances signified a vectorially predictable progress for humanity, ever upward, *excelsior*. There is not the slightest proof that this is so. The arbitrary choice of a reference point can serve to prove or disprove any contention.

The progress, in the rose-colored sense, of one nation or one civilization may mean the retrogression of another. The colonizers got immensely rich from an Africa that they threw back into the stone age. The triumph of the Enlightenment did not prevent the plantation owners from flogging their slaves. And one glance at today’s newspaper convinces me that if the Israeli settlers make good progress on the West Bank, the opposite is true of

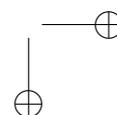
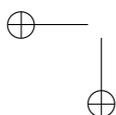


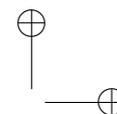
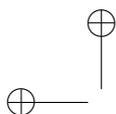


the Arab inhabitants. It all depends upon whose needle you are watching on the meter.

That simply means that the idea of progress has become a most effective weapon in the armory of hypocrisy. When did that take place? In English, *progress* was first used in the sense of an improvement, an upward movement, in 1603; in French *progrès* has been so employed since 1671. The corresponding word in German, *Fortschritt*, was introduced in 1750, it seems by the great writer C. M. Wieland. But, as expected, it was during the revolutionary period of 1830 to 1848 that the word acquired, in all languages, the current character of a political slogan, becoming somehow involved with the pursuit of happiness. The expression “progressive politician” was first recorded around the same time in the United States.

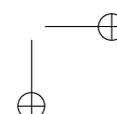
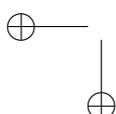
Where there are trumpets, there are also sourdines. Although the touching faith in the unending progress of humanity toward an ever better life was soon to find support considered as scientific and therefore irrefutable, that belief was not shared by all. For instance, the great painter Eugène Delacroix wrote in his diary on April 23, 1849: “I believe, according to the news that have been striking our eyes for the last year, that one may assert that all progress does not necessarily bring about greater progress, but finally its negation, the return to the starting point. The history of mankind suffices to prove that.” Even more far-reaching rejections of the idea of progress as an obligatory upward movement in history can be found in the writings of Baudelaire, Schopenhauer, Nietzsche.

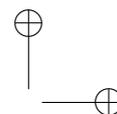
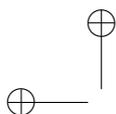




To determine the origin of an idea or an ideal is notoriously difficult. Even the philosophical postulation of our world as the best of all possible ones did not include the prophetic corollary that it had to get even better all the time. On the contrary, I get the impression that the world of Leibniz precludes the likelihood of further improvement. All i's were already dotted in the original plan. Two or three generations later, however, a period of a moderate and philosophical optimism set in; and such a firm representative of the Enlightenment as G. E. Lessing did not find it difficult to believe in the limitless educability of mankind. His last work was titled *The Education of the Human Race*, and the Bible was to be the textbook through whose inexhaustible teachings man would raise himself to unimaginable heights. "No!" Lessing exclaimed, "no; it will come, it will certainly come, the time of perfection." Well, it has not come, and I do not believe, it will ever come. One hundred and sixty years after Lessing's death the bulk of the literature in his own country consisted not of the Bible nor of his own writings, but of endless, pitiless lists of names, the millions of innocents slaughtered in Auschwitz and Treblinka, Belsen and Buchenwald. Other lists, other names have been added, drawn up by the stroke of a pen, extinguished by the push of a button: Hiroshima, Nagasaki, Dresden, and how many others. Out of these bones and ashes there has grown, there will grow, a harvest of blood and misery.

So let us go back to bleating optimism, smiling toothily, R. W. Emerson in 1844: "Every line of history inspires a confidence that we shall not go far wrong; that things mend." Have I not heard the same lately, out of the



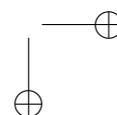
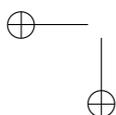


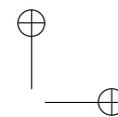
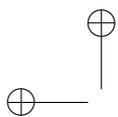
president's mouth, that "things were on the mend?" Eternal optimism seems to be the price that the people of our time are willing to pay for a joyless life. The darker the night, the more radiant a future that will never come.

When Darwin appeared on the tribune, professional progressivism really got something to sink the teeth into. Near the very end of *The Origin of Species* the following remarkable sentences can be found: "Hence we may look with some confidence to a secure future of great length. And as natural selection works solely by and for the good of each being, all corporal and mental endowments will tend to progress towards perfection." One can only applaud and shout "Bravo plutonium! Come on dioxin!"

It will be seen, the progress guaranteed by Evolution, which has taken the place of Providence in our time, is automatic. In the meantime, we may behave like the devil on earth. An ideal, very different from that of the Greeks when they erected the pinnacle of the man "beautiful and good," *kalokagathós*, for that had to be striven for, and seldom reached, by each individual. I do not wish, however, in what I just said to imply that I consider Darwin one of the causes of our present malaise; he was one of the symptoms, as we all are.

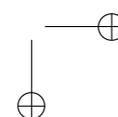
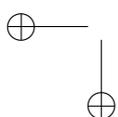
There exists one most important area of human activity to which the concept of progress, in the sense of improvement, cannot be applied at all, namely, the fine arts, music, literature. I do not know on the basis of which standards the assertion could rest that Bernard Shaw was better than Aischylos or Thomas Mann better than Homer. Even if I chose less ridiculous partners of comparison, by substituting, say, Bertolt Brecht and

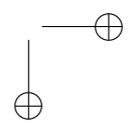
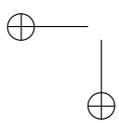
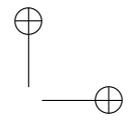
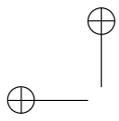


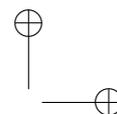
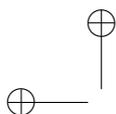


Marcel Proust, my contention that there can be no claim of an upward movement would remain unchanged.

But there has been absolute progress in mathematics and most certainly in the natural sciences. All activities of the human mind that have set themselves the task of exploring the explorable, of reaching a recognizable goal, have penetrated into regions of which the past was ignorant. Whether we have not paid too high a price for this achievement may remain a matter of controversy. Not for me, though, for I fear that, if we continue our efforts in the direction that we have given them during the last fifty years, the prediction made by Thomas Love Peacock more than one hundred and twenty years ago may well come true: "I almost think it is the ultimate destiny of science to exterminate the human race."





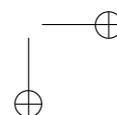
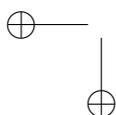


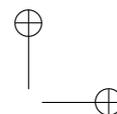
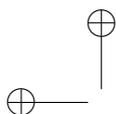
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QUINTESSENCE

To a lover of words this is truly a word with which to fall in love. (Quite apart from its being a boon to the worried soul constructing an ABC of words, the letter Q being notoriously uneager to come forward.) Few words have so noble a pedigree, going back right to the origins of Western philosophy. To the four elements constituting the universe, as Empedocles envisioned it, to fire, water, air, and earth, Aristotle felt compelled to add a fifth, the ether, and thus the fifth element was born. Under its Latin name, *quinta essentia*, it was taken over by the Middle Ages, entering all Western languages at an early date. The word can be demonstrated in French around 1270, in English around 1430, in German in 1615. Whether the word *quintessence* would have acquired its present principal connotation, namely, “the essence of a thing in its most concentrated form,” without the very active collaboration of the alchemists, may, however, be doubtful.

Without alchemy Aristotle’s fifth element, *pempté ousia* in Greek, would hardly have survived into our times. Already in the alchemical writings ascribed to that great and strange Majorcan, Ramón Lull (1235–1315), quintessence makes an appearance as one of the prerequisites for making the philosopher’s stone. The alchemists, attempting to extract, refine, and concen-

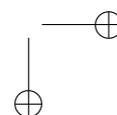
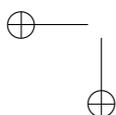


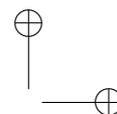
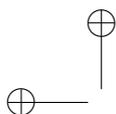


trate this highly immaterial material, the fifth essence, succeeded in doing all sorts of useful prechemical experiments, so, for instance, they discovered, or perhaps rediscovered, pure alcohol, the “water of life,” *aqua vitae*. Ethyl alcohol is a very good solvent for many things that water will not extract, and alchemists were soon busy using alcohol for the extraction of the quintessence, unfortunately without knowing exactly what they were looking for. And so, one of the few generally applauded achievements of alchemy is perhaps the preparation of the liqueur Benedictine, in which one of the meanings of quintessence is demonstrated very palatably.

Being brought up honestly (that is, before the present-day flowering of science), I ought to acknowledge that, in what I have written here, I received useful instruction from a fascinating little book, *The Alchemists* by F. Sherwood Taylor; a book that I believe underestimates the intellectual displacement volume of Paracelsus.

If quintessence is the most concentrated essence of a thing, then there must be many quintessences, some even in the form of beautiful crystals. Those are not the ones I want to consider here, for I plan to walk along an entirely different path. Looking up the word, the other day, in *Webster's Third International Dictionary* I found the following sentence among the examples. “The quintessence of music is, after all, melody.” Leaving aside whether this is correct or whether, for instance, rhythm does not have as good a claim, the sentence set me thinking. “What is the quintessence of language?” I asked. All sorts of obscene interjections offered themselves pointing out that concentrates of language must be terse, but I drove them away and gave my own answer. “Poetry





is the quintessence of language,” I said, and even after mature deliberation I still maintain that claim. That it is certainly not true of the poetry that I now see published is immaterial. Not all periods are equally good in everything: we make better atom bombs than Pericles.

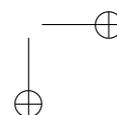
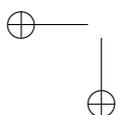
To speak about quintessential poetry would, however, be a dangerous undertaking, full of pitfalls, for poetry is not all that the poet writes (quite in contrast to science, which is simply everything that a scientist does). I decided, therefore, to choose the second best and to say a few words about the quintessence of prose. Maybe that is even better than second best, because I believe it is harder to write prose than poetry, which until recently was held up and helped along by the iron corset of rule and rhyme. Molière’s Monsieur Jourdain was surprised to learn that what he had been speaking for forty years was prose; but actually it was not, at least not the one I have in mind. I mean the prose that is not made with volitions, impulses, thoughts, but with words.

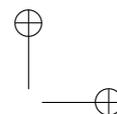
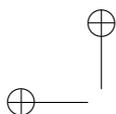
What I just said may remind a few readers of the marvelous story that Paul Valéry told in his little book *Degas Danse Dessin*.

One day, Degas told me, when dining at Berthe Morisot’s with Mallarmé, he complained, how much trouble the writing of poetry caused him. “What a profession!” he exclaimed, “I lost a whole day on a damned sonnet without making any headway. . . . And for all that, I don’t lack ideas, I am full of them, there are too many. . . .”

And Mallarmé, gentle and profound as always, replied: “But, Degas, one doesn’t make verse with ideas. . . . One makes them with words. . . .”

Precisely the same is true of the kind of prose of which I am thinking here: it is made with words. The fact,

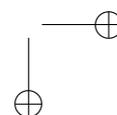
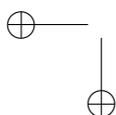


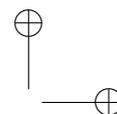
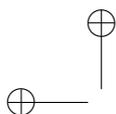


however, that words, in contrast to notes or brushstrokes, serve for many purposes makes for a great deal of trouble with regard to aesthetic distinction in the several arts – literature, music, painting – making use of those means of communication. Anybody able to say “Put the pot on the table” or “I am starved” acquires a stake in Gibbon’s majestic prose, even if on first hearing that author’s name he may identify him with an ape. That is also the reason why most people will find it easier to recognize a characteristic personal style in a painting or in a composition than in a text. Literature must overcome an enormous background noise which is hardly a factor in the enjoyment, let alone the creation, of the other arts. There have been a few outstanding exceptions, writers who were extremely conscious of other writer’s styles. Marcel Proust or Max Beerbohm are examples: Proust in his *Pastiches et mélanges*, in which he derides, often with glorious success, the affectations and idiosyncrasies of many celebrated French writers; Beerbohm, almost equally good, in his *A Christmas Garland*. A characteristic style is, of course, in itself not an indication of high quality. One can be an awful writer and have an inimitable style: who would want to imitate it?*

It is, of course, not verbiage with which I am concerned; it is prose (I should almost have said artistic prose, but I dislike that adjective). And as to the quintessence

*Hitler’s *Mein Kampf* belongs in that category; it even goes beyond it: each indelicacy of thought or expression encrusted with blood, each malapropism a pyramid of skulls, the crooked climax a mire of rotting flesh. What a ghastly figure! How insignificant historic greatness is when viewed through a lampshade made of human skin!

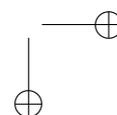
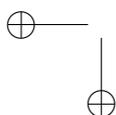


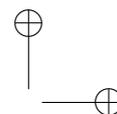
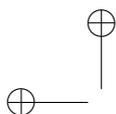


of prose, which I have introduced before, my candidate is the essay. That is certainly the form that can accommodate good prose in the most concentrated way. Fiction is by necessity a diluting medium; and if I can remember wonderful passages, for instance, in Stendhal's *Chartreuse de Parme*, in Tolstoi's *War and Peace* and *Anna Karenina*, or in *Effie Briest* by Theodore Fontane, most of my memories of fiction reading are of a less delectable nature.

The concepts of "fiction" and "nonfiction" are, in any event, inapplicable to what I have in mind. They are meaningless, even in publishers' catalogues. Genuine and faked, intense and flaccid, authentic and purloined, literary and journalistic are better opposites, but no book salesman could make use of them. On the other hand, "imagined" versus "experienced" or "invented" versus "observed" are not usable pairs of opposites, for reality cannot have the same sense to a writer as to a scientist. Furthermore, one of the principal components of present-day nonfiction lists, the how-to books, are often entirely fictive, as shown by the experience of their users. In the end, there is only one acceptable pair of antonyms, "good" and "bad"; but I am told that this is a matter of taste and therefore shunned by our scientific times. If I interpose that much in science also is a matter of taste, I shall not be believed.

Nevertheless, I shall reformulate my previous statement to say that a good essay is the quintessence of good prose. This would seem to exclude all scientific, and even all scholarly, work. But not so fast! I have already mentioned Edward Gibbon, I could mention David Hume, Immanuel Kant, Arthur Schopenhauer, Jacob

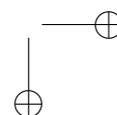
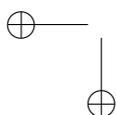


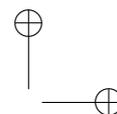
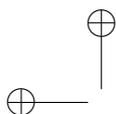


Burckhardt, Friedrich Nietzsche, Sigmund Freud, Otto Weininger, and, particularly, Ludwig Wittgenstein. I could have mentioned many more; they all wrote good prose and many of them wrote great essays, but there would have been few natural scientists among them and none in our time. Nowadays, scientific papers are travelogues written, reluctantly, by busy travelers who like nothing better than to receive the rewards for their labors without having to take the trouble of relating them.

In advancing the claim that the essay is the foremost receptacle of quintessential prose I am not unaware of the difficulty of defining that literary form, because the essay is truly a Proteus. How often it has happened to me that, reading some text, I would say “That is a marvelous essay.” Whereupon there would be a prompt protest: “I am not an essay, I am a treatise, a monograph, a composition, a tract, an article, a paper, a pamphlet, a polemic, a feuilleton, a sketch, a fragment.” I had to beat a timid retreat and the only thing left to me was to open Montaigne’s great and big book with which the history of the essay began. He, Michel de Montaigne, was not beset by scruples of category or nomenclature; literary criticism was not even a home industry in his time. When he said that his writings were essays, they were essays.

Essay means “attempt” and, in fact, German essays of the seventeenth and eighteenth centuries often called themselves *Versuche*. It is therefore a very modest designation, with no pretension to literary knighthood. On the other hand, there are no limits as to height or depth into which the essay may venture. It may be a montgolfier without any ballast or a plummet probing the

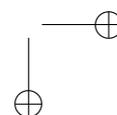
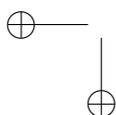


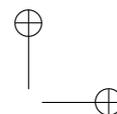
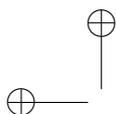


deepest depths. Or, hardest of tasks, it may barely graze the beautiful surface of things. As the touchstone often is truer than the gold it rejects, the essay, too, can be a touchstone, but one without any consequences. In adding that the essay is as useless and as indispensable as is the poem I probably sign a death warrant. I have long ago given up considering why people read at all. Maybe they don't anymore, for reading is no longer state-of-the-art data retrieval. The electronic nursemaid taught that to the children some time ago.

Whether some of the writings of, for instance, Seneca or Lukianos should be classified as essays is a matter better left for Dr. Dryasdust to decide. Commonly, it is France that is considered as the birthplace of the essay. Montaigne's *Essais* were widely read throughout the world, especially in England, where the translations by Florio and Cotton made them a popular book. They were known to Shakespeare and to Ben Jonson. There are few pages in Pascal's *Pensées* without an allusion to Montaigne.

Nevertheless, it was neither France nor Germany, it was England where the essay as a literary form became truly naturalized. More great names are connected there with the essay than anywhere else. The first famous name usually mentioned is that of Francis Bacon, but I cannot say that I ever fell in love with his *Essays*, of which Douglas Bush in his *English Literature in the Earlier Seventeenth Century* shrewdly remarks: "Everyone has read them, but no one is ever found reading them." But there were Addison and Steele with the *Spectator*, Jonathan Swift, Samuel Johnson with his *Rambler*, Charles Lamb and his contemporary, one of the greatest

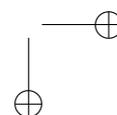
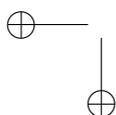


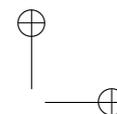
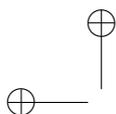


of all essayists, William Hazlitt. The tradition continues: Sydney Smith and De Quincey, Carlyle, Macaulay and the *Edinburgh Review*, John Ruskin, Matthew Arnold, and Walter Bagehot, Cardinal Newman and Lord Acton, Henry James, Oscar Wilde, Hilaire Belloc, G. K. Chesterton, Max Beerbohm, and in our days Virginia Woolf and George Orwell. Without widely read periodicals of high quality, such a flowering of the art of the essay would not have been thinkable. This, I am afraid, has come to an end everywhere in the world.

The reason is not far to seek. Even more than poetry the essay demands a public that does more than listen and watch. It needs a reading public or, better, it needs the quiet reader in his quiet room, one who can turn the leaves forward and back, read a passage again, meditate about another. Many great essays breathe a peace and a stillness, as of endless summer evenings in the country, something that our frenzied times have annihilated forever.

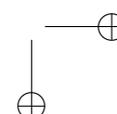
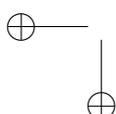
My mention of peace and quiet may call forth vigorous objections, and rightly so. That is certainly not what is found in the writings of Swift, and it is possible that they and their like speak to our times with greater actuality than the sun-drenched prose of some of the most celebrated examples. As I already said, the essay is the Proteus – or should I say the chameleon? – among the several literary forms. It accommodates much for which there is no room elsewhere. Invective and polemic, diatribe and criticism, great love and burning hatred, despair and hope: all have once found their place in one essay or another. As a matter of fact, outside of the heartland of the essay, Great Britain, other forms predominate,

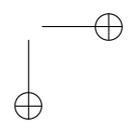
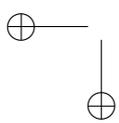
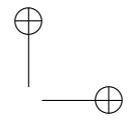
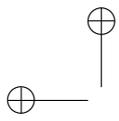


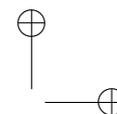
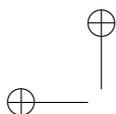


whether it be Voltaire or Paul-Louis Courier, Goethe or Friedrich Schlegel, Schopenhauer or Karl Marx. I myself grew up within sight and hearing of one of the greatest masters of satirical and critical prose, Karl Kraus, whose essentially untranslatable work showed him to be a late descendant of the Hebrew prophets, turning passion into fire, fury into prophecy. Another very distinguished essayist also worked in Vienna at the same time, Robert Musil, a reserved and caustic observer of a dreadful epoch. His great unfinished novel *The Man without Qualities* offers itself to the reader as a funeral wreath of meditations on his time. Fate was gentle to Karl Kraus, letting him die in 1936, two years before the bloody brigades marched into Vienna; it was cruel to Musil: he died a few years later in poverty and exile.

Can essays still be written in our time? I believe they can; they may, in fact, be the only literary form that is not yet worn and exhausted. But are they still being read? Is the kind of reading in which I spent my life still possible? I must confess, I do not know the answer. In the midst of the most murderous century known to history, seers, drunk with visions of a future that I shall be glad to leave to them, have proclaimed the end of the book. It would be interesting to see what else will come to an end.





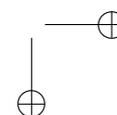
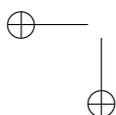


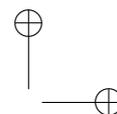
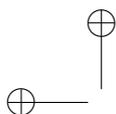
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RESEARCH

“What is your son doing?” “He is doing research.” No further specification given, nor is the questioner inclined to ask, “What kind of research?” Just as, following the answer “My son is a gravedigger,” a further inquiry, “Whose graves is he digging?”, would hardly be appropriate. Doing research is a fact of life, an honored occupation, even profession, something that could be called, in analogy to handicraft, a “headicraft.” For it is understood that the intellect is engaged, even if the task consists in pushing a button whose function is not clear. The mantle of Maxwell or Einstein covers much that does not entirely merit that ancestry.

In any event, I do not believe that sixty years ago such an answer could have been given. The high school yards did not yet swarm with Science Fairies, with Westinghousian short-pants; and being a full-time researcher belonged to the rarest of occupations. If one was interested in a life of scholarship, one tried to get a university job, and if one was lucky in finding one of those underpaid positions, the engagement called for teaching. Investigative work was definitely a sideline, an exalted hobby from which a few graduate students also benefited. There existed a few exceptions: the great scientific amateurs of Victorian England who supported some research through their own wealth; and a few research institutes

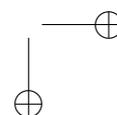
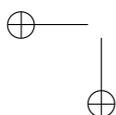


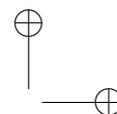
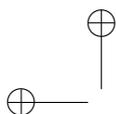


in some of the advanced European countries; very little in the United States. To devote one's life exclusively to scientific or scholarly research was a rare and risky venture. In my youth, I knew only of one very distant relative of whom it was rumored that "the was doing research in pathology." He died young.

In my book *Heracletean Fire* I have described how I got into chemical and biochemical research. That was in 1928; but even then it was clear to me that I should eventually have to find a university post with teaching obligations, as I did a few years later. Maybe I then had too high an opinion of what it meant to do scientific research; maybe the models of scholars and investigators I had chosen to look up to were altogether too exalted. But I would say that somebody working on the border between the small area of light that had fallen on nature and the huge continents of darkness lying beyond appeared, at any rate to my young and inexperienced eyes, to carry a heavy load of responsibility.

If the responsibility was great, so were the intellectual rewards. It was still possible to make primary discoveries in the very center of a given scientific discipline: in physics, chemistry, geology, biology, and so on. What I have tried repeatedly to relate and what is not realized sufficiently is how small the scientific establishment actually was until the Second World War. Suffering from a disease of old age that could be called "statisticophobia," I lack exact figures, but I have the impression that in some areas of scientific research the increase may well be fiftyfold or more. In any case, the change, in its abruptness and in its dimensions, has had the expected effect: by enormously increasing the quantity of researchers it

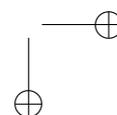
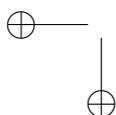


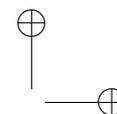
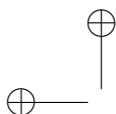


has brought about a change in the quality of research. It has, more than anything else, contributed to the creation of a new class, the knowledge producers. Concomitant with that, there has also taken place a most important shift in the proportions of the different practitioners of “headicrafts”: away from university teachers toward those engaged in full-time research, be it at a university, an institute or an industrial laboratory.

What, then, is scientific research? If I define science as the sum of that part of our knowledge about nature that is compatible with the laws of physics and chemistry, research is the activity that adds to that knowledge. Whether the explorable area of what can be known about nature is limited or limitless has long been debated. I myself am inclined to the first possibility, the more so as I have the impression that many sciences are reaching their normal limits. To obviate this form of technological unemployment, the class of knowledge producers has, in its collective instinct for self-preservation, found a few tricks: we can always submerge ourselves ever more deeply into the decimals, as it were. To make clear what I mean by dipping into the decimals a little parable may help.

Once upon a time, the proverbial Man from Mars was, for bad behavior, exiled to our globe, with the injunction to investigate the structure and function of the first thing he came across. Encountering a standing automobile, he took it apart, inspected the different organs of the contraption, put the whole thing together again, and came to the conclusion that it consisted essentially of a combustion engine that was driving the wheels. Since he had no intention of constructing himself another car,

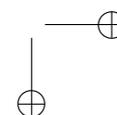
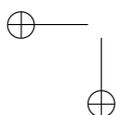


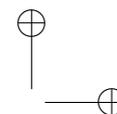
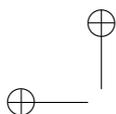


he declared his task as done: he had investigated the structure and function of the motorcar. He was even proud of his truly extraterrestrial intelligence. But when he reported to his Martian probation officer, there came the order "Go deeper." That command was repeated after each interim report. And so the Man from Mars is still at it, analyzing the exact composition of each part, rubber and glass, plastic, steel, and alloys, glue and paint. He had to build a huge laboratory and all sorts of apparatus for the quantitative estimation of many minute components. Structure and function? Do not ask him about it, for he does not know anymore that he is studying an automobile; he is in the middle of working out a new method for the microdetermination of manganese. He is correct in declaring that the vistas are endless.

But vistas are no better than what is seen nearby and on the horizon. And I must confess to the feeling that the louder the scientists scream about the wonderful views revealed by their researches, the less remains visible to the rest of humanity. At the end we shall all have learned how to analyze for manganese.

My humble parable tries to represent what I believe has happened to science and scientific research in the last forty years. I would call it an inflationary banalization of research. But I must not be misunderstood: it is not so much the results that I call banal, though many are, as the way in which they are achieved. Imagination is the driving force of all human creation. By changing science into a technology, by mechanizing all approaches toward the testing of the adequacy of scientific imagination, by emphasizing the goal over the road, research has been

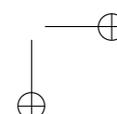
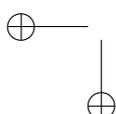


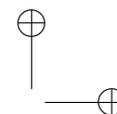
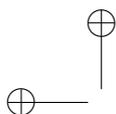


perverted to a conducted tour to the marvels of nature. I have often asked myself whether we now have so many more scientists because there are so many more scientific problems to be solved or whether it is the other way around. I believe the latter to be the case. The ancient Greeks were better at home in their limited universe than we are in ours, and they accomplished that by thinking more and asking less. The objection that this had, after all, not been the way of Socrates, the greatest of all questioners, can be met easily. Socrates' queries were the result of profound reflection, carrying their question marks as masks, as it were.

The words *research*, *recherche*, *ricerca* are derived from a verb meaning "to seek out"; the corresponding German word *Forschung* and the related Scandinavian words imply asking a question or interrogating; similarly in Russian. Scientific research, therefore, is a question asked of nature. But nature is notoriously mute. We must ourselves answer our questions, though being warned by ancient wisdom that he who asks no questions will be told no lies, but also that a fool may ask more questions than a wise man can answer in seven years. The problem, therefore, is to avoid asking foolish questions.

That is, however, a problem that has remained unsolved. The very firm and elaborate framework of the basic sciences, physics and chemistry, erected in the course of centuries, has in general prevented the worst, at any rate until the atom was split. Biology and the applied sciences derived from it, such as medicine, are in a much less firm situation, having to deal with the scientifically intractable condition of life. All systems may be "go," but they do not know, where. (I apologize for

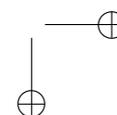
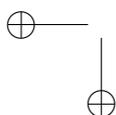


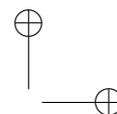
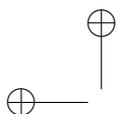


using the infantile NASA jargon, but the moon landings, for instance, typify what I consider a silly question.)

There exists in scientific research an element of seeking and an element of finding. Seekers are not necessarily also finders, but it is the first who write the more valuable descriptions of their travels. The older generations of scientists, and also most of those who lived before my time, were mostly of the seeking kind. Seeking contains a component of dreaming, and one could say that it was as in a dream that many a great scientist came upon a find, though not always of what he had been looking for. Present-day research, however, places much too great a value on finding, bulldozing its shortcuts through the silent fields of nature. Many more so-called scientific facts have probably been discovered in the last ten years than in the preceding hundred. Their very number has produced a devaluation of each single one, and it is only a mild exaggeration when I say that, to me at least, many of the sciences with which I maintain some degree of familiarity seem to suffer from severe stagflation. There will no doubt spring up a thousand supply-side scientists to deny my statement. It is the common human condition that the only proof of truth lies in the loudness of its denial. Unfortunately it is not a sufficient proof, for many truths fall under the table, unnoticed and unattacked.

I seem to have been speaking mostly about scientific research. Is research in the humanities in the same situation? I believe it is. (How is it that nobody has yet divided the fields of higher learning into the humanities and the bestialities? “Dean of Bestialities” sounds very nice to me.) The same sluggish inflation, the same

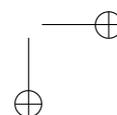
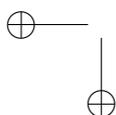


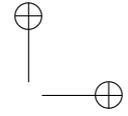
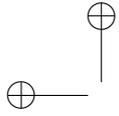


expulsion of the scholar by the expert, the same sloganification of research interests. Of course, there exist differences: the slightest improvement of a nerve gas can do immensely more harm than five extra books on Joyce. And another difference: the humanities suffer from much greater penury than the pampered sciences. But the dominance of fashions, to be replaced every five years, is as noticeable in the humanities as in the sciences. This includes the attempt to ape the sciences, to quantify the unquantifiable, to isolate what cannot be.

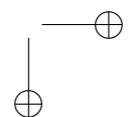
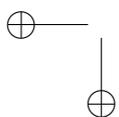
I wish I could describe, let alone explain, what has happened. When a building collapses after an earthquake, one blames the foundation. But the groundwork that has supported mankind for thousands of years is not easily identified. Was it a sort of gyroscopic control that prevented the trees from growing into the heavens, protecting us, at the same time, from extinction? I hesitate to name the controls, for such words as faith, love, frugality, modesty, compassion, can no longer be used. It is much easier to suggest what took the role of the earthquake: revolutions, wars, explosions. The French and Russian revolutions, but also the industrial revolution; two World Wars, with the third, and presumably last, on the horizon; the atom bomb, but also the information explosion: the list is much too long.

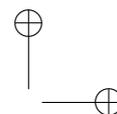
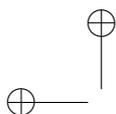
That scientific research has had a part in it cannot be denied. But it is, for all that, only a tiny cog in a huge machinery of destruction. Research, when it began, probably had its origin in a primordial desire of man: to examine the world that surrounds him, to give himself an account of its workings, to use the means that it offers to him. That origin is usually described insufficiently when





it is said to be caused by inborn curiosity, not one of the noblest passions of humanity. What scientific research has become in our time is something entirely different: an attempt to change the destiny of man, to undo what millions of years have achieved, to improve on creation. This attempt will not succeed.



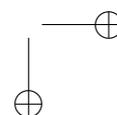
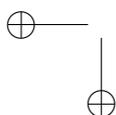


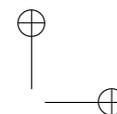
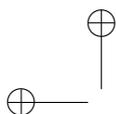
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SEX LIFE OF GRAMMAR

For a very long time, ham from male chauvinist pigs has nourished the vocabulary and the speaking habits of English-speaking people very satisfactorily, but lately there has been an upheaval: attempts to force the grammar to change its ugly habits are being undertaken with increasing frequency and vigor. The following will deal principally with English, for most other languages have a much healthier sex life, or have at least known how to appear so to the suspicious eyes of the eternal fault-finder. (Please note that I do not add “or faultfindress,” although I leave it open whether the mythological *Argus* was not really an *Arga*.) I do not know how it came about, but the trouble must have begun when America suddenly became aware of the fact, long known in other parts, that the human race consists of two sexes, the males and the females. Maybe creation could have ordained otherwise, but that was the way it (he, she?) arranged it throughout most of the realm of life.

Females, males? Why not, for instance, *shemales* and *hemales*? Well, there are good etymological reasons. Who cares about etymology? To my shame, I do. The two words have entirely different origins: *male* comes from Old French *male* or *masle* which in turn derives from the Latin *masculus*; *female* via Old French *femelle* from Latin *femella*, the diminutive of *femina*, woman.



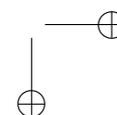
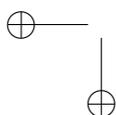


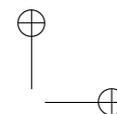
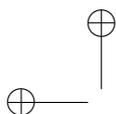
For reasons of versificatory convenience the two words were often made to rhyme, but not always; as late as 1671 Milton writes in *Samson Agonistes* (lines 710 and 711):

But who is this, what thing of Sea or Land?
Femal of sex it seems. . .

(A third serious warning to Milton for using “it” instead of “she.”)

The real bones of contention rattle, however, in another cupboard. Whether you accept the story that Eve was created from Adam’s rib and not the other way around, or whether you simply admit that a Neanderthal gentleman carried a heavier cudgel than the ladies, who resorted instead to poison: it seems to be so that at the sources from which the languages flowed males came first. Many languages use the same word to designate a human being and a male, and it is not quite clear, though probable, whether a woman was admitted to human status. Noticing that man and woman have at least one thing in common, the ancient languages, so rich in tropes, metaphors, and other figures of speech, often preferred to speak of human beings as “mortals.” The two great classical languages, Greek and Latin, have, perhaps, least to be ashamed of. Both possess a separate word for “human being”: Greek *anthropos*, Latin *homo*, in addition to designations for males, *anēr*, *vir*, and for females, *gynē* and *femina* or *mulier*, respectively. Greek even surpasses most other languages: as it has three genders, masculine, feminine, and neuter, it possesses three different definite articles; when it refers to a human being, it permits the word *anthropos* to be specified

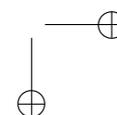
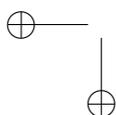


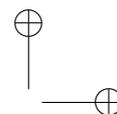
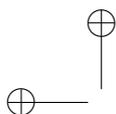


by the article required by either the masculine or the feminine gender, something that not even the Germanic languages achieve. As ancient a poet as Homer has a line (9, 134) in the *Iliad* in which all three designations – for human beings, males, and females – occur together.

In the Romance languages, which developed out of the highly virile great migrations, those distinctions got lost. For instance, in French the word *homme* already in 980 designated both a human being and a man, and a few years later even a husband. The English language inherited these deficiencies from its French ancestor. Actually, in Old English the prevalent sense of *man* was “human being,” since the language possessed other words distinctive of sex: *wer* and *wīf* or *wēpman* and *wīfman* from which latter *woman* developed in the thirteenth century.

As some of the embittered discussions of the last few years have emphasized, the Germanic and Slavic languages are in a much less ambiguous position. German has *Mensch* for “human,” *Mann* for “man,” and *Weib* for “woman”; the three corresponding Russian words are *chelovék*, *muzhchina*, *zhénshchina*. The existence in these languages of a separate word for a human being has prevented many a senseless argument and bitter squabble. The German word *Mensch*, *ménnisco* in both Old High German and Anglo-Saxon, is itself derived from *Mann* or *man*. The primordial meanings of the Germanic designations of the sexes are not without deeper significance: *Mann* apparently connoted “the thinking one” and *Weib* “the veiled one.” Incidentally, the other German word for “woman,” namely, *Frau*, meant originally “the reigning

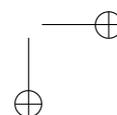
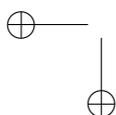


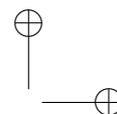
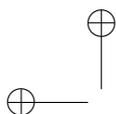


one” and corresponds therefore fairly exactly to *mistress* or *donna*.

A celebrated sentence from the Old Testament (Deut. 8, 3) reads: “*Man* doth not live by bread only.” The Vulgate has “quod non in solo pane vivat *homo*,” the Luther Bible “Der *Mensch* lebt nicht vom Brot allein.” By omitting the definite or indefinite article the compilers of the Authorized Version made it known that mankind was being talked about and not only the rougher half. St. Jerome or Luther had a simpler task. Roughly three hundred years later, however, D. H. Lawrence has the following sentence in *Women in Love*: “And Gerald could not help it, he was bound to strive to come up to her criterion, fulfil her idea of a man and a human being.” Obviously, to Lawrence *man* and *human being* were not synonymous.

No doubt, that curious deficiency in the language has given rise to an age-old malaise which such pale substitutes as *human being*, *individual*, or *person* have been unable to drive out. The last of these words, especially, has been misused fearfully, in such ridiculous formations as *chairperson*. With the mistakenly democratic notion that everybody should look equally silly, a sentence from an article of mine reading “it is not the men that make science; it is science that makes the men” was changed by the copy editor, when that essay was to form part of a book, to “it is not the person that makes science; it is science that makes the person.” Clearly, a chase has been declared on that odious three-letter word, and I expect soon to encounter *woperson* for *woman*, *huperson* for *human*, *personhole* for *manhole*, to *personage* for to *manage*, etc. I find the idea that you can scrabble your

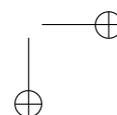
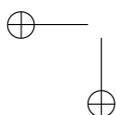


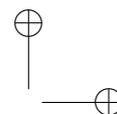
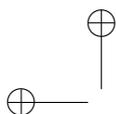


way to a new consciousness ridiculous. If this form of linguistic Luddism is not stopped by its own absurdity, we may still hear of Hebrews and Shebrews.

One may ask: why this sudden assault on a language that has taken thousands of years to grow into a marvel of the world? Why did great writers, such as Jane Austen or Emily Brontë, Christina Rossetti or Emily Dickinson, find their language more than tolerable; would Alexander Pope have been a better poet, if he had written “An Essay on Person”? And for that matter: why do not other languages suffering from the same ambiguity, if it is one, reach as readily for the castrating knife? Madame de Sévigné or George Sand seem never to have been in doubt about the particular connotation of *homme*, and yet they were *femmes*.

Of course, cussedness is not the only explanation. In its great flexibility English is, paradoxically, a rigid language, it pays for its advantages. No other language I know is as easy to speak, and as easy to speak badly. It is the language in which a minimum of thought can be conveyed most quickly, and with a minimum of knowledge. Its difficult and bizarre spelling, with few words pronounced as written, is more than compensated by the absence of inflection. That is why English has become the lingua franca of science, the common language of politics and commerce. Probably never in history have so many people made use of a language whose literature they are completely unable to read. But, as popular wisdom tells us, there is no free lunch. The genderless noun does not tell you what third person pronoun to use in the singular. Two genders in French or Italian, three genders in German or Russian. Of course, why is “cheese”

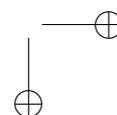
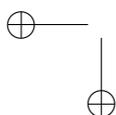


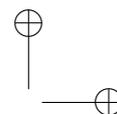
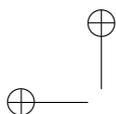


masculine in all those languages and “butter” feminine in German, neuter in Russian? Why is “sun” masculine and “moon” feminine in French, whereas in German it is the other way around? The grammatic mystique of sex is far from understood, though I suspect that there were valid tribal reasons why different languages went different ways. English, however, is very much under the reign of unisex, and unisex works only for hermaphrodites.

“Er ist ein Lehrer; sie ist eine Lehrerin.” “Il est un instituteur; elle est une institutrice.” (He (she) is a teacher.) In these German and French sentences even the sex-dependent form of the noun directs the gender of the article and the pronoun to be used; in English you have got to watch for secondary characteristics, the noun is noncommittal. The suffix *-ess* is not as universally useful as are comparable endings in other languages and seems, in fact, to lose rather than gain popularity. *Président, présidente, Vorsitzender, Vorsitzende* are certainly more informative and convenient than *chairman*, but to me at any rate, keeping in mind that *man* signifies primarily a human being and only secondarily, if required by the context, a male being, the difficulties do not appear insurmountable.

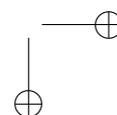
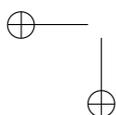
Rivarol’s famous saying that whatever is not clear is not French has never been true; all languages are as clear as the minds that use them, and evil minds can deprave any language. But that is a metaphysical category which I am unable to enter. What I should like to consider, however, is why the reformatory zeal boiled up in our time, and most of all in America. There has been in all advanced nations since the onset of industrial capitalism a progressive estrangement of the speakers

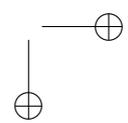
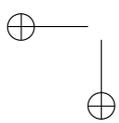
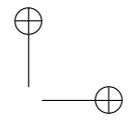
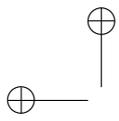


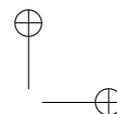
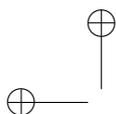


from their language. From being instinctive language became deliberate; not because, as a wit once claimed, it served to conceal one's own thoughts, but because it was a means to infect other brains with those thoughts. Nowhere, not in Nazi Germany, not in Soviet Russia, has the discovery that language is the foremost tool for the manipulation of the masses been exploited with as much fervor and success as in America. If there is anything even more native than chewing gum or shysters it is publicity in all its annoying, disturbing, enervating forms. If one day, similar to the plagues that God sent over Egypt, publicity were to stop entirely, how would the people know what president to elect, what underpants to buy? Publicity has shown that language is nothing but a cheap, replaceable, renewable instrument. So why not retool continually, why not get rid of the words that are no longer "state of the art"? After all, person does not live by bread alone.

One does not have to be an admirer of the abominable "Blut und Boden" mythology, to know that there is more to language than that. In all countries where languages have had the time to grow and to change slowly, imperceptibly, as organisms grow and change, they have become engrained in the flesh and bone of the nation: the willful removal of a word or an idiom amounts to an amputation. Only where language is no more than a loose cloak can it be patched or shortened; and that is what our unisexist reformers are trying to do. They cannot succeed. Language is a flowing, burning lava: try to punch a hole in it.







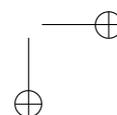
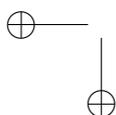
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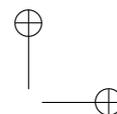
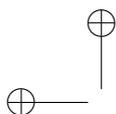
SWINDLE – SCIENTIFIC AND OTHERWISE

The English language is rich in expressions for acts that your neighbor would rather not want you to perform on him. This is presumably true of all languages, although I doubt that the menu is in all cases as plentiful as in ours. Leaving aside all words denoting violence, trespassing, or thieving, I want to limit myself here to those activities in which man proves that he is both *homo* and *sapiens*, for they require intelligence, and no animal would fall as low. The semantic fields with which I wish to concern myself are those occupied by such verbs as *to swindle*, *to cheat*, *to fake*. Each of those words has an entire train of synonyms and near-synonyms, and if one were to include related words, such as *to fleece*, *to trick*, *to hoax* and their areas of meaning, one could fill a book.

It may be idiosyncratic on my part, if I have put *swindle* into the title, but I consider that word nobler, as it were, more refined. I would say “a common cheat,” but an “ingenious swindler.” In any event, somebody with a doctor’s degree, an MD or a PhD, would rightly expect to be called a swindler, not a cheat, although I could well imagine a sentence such as “Dr. X faked his results, cheated his way into the journal, and swindled the readers.”

Incidentally, the oldest of my three words is *cheat*. It derives from the French and has been used in its

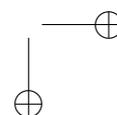
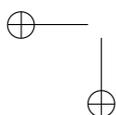


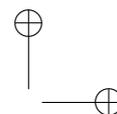
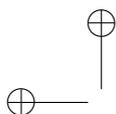


present sense since the sixteenth century. Swindle was brought over from Germany in the eighteenth century, according to the *Oxford English Dictionary*, by German Jews doing business in London. Fake is a slang word of the nineteenth century with an uncertain etymology.

The activities described by these words are probably as old as humanity. Did not the serpent cheat Eve with the promise of firm ethical distinction, to know Good and Evil? Also, what went on in the noisy bazaars of Sumer and Babylon was presumably not always a model of human probity. But the primitive, and therefore almost touching, urge furtively to transfer money from the stranger's pocket into one's own is not what I want to consider here, concerned, as I am, with the higher reaches of the mind, namely, with scientific and other intellectual deceits. Of course, before there was science there could not have been scientific swindles. But there was art, there was literature, not to speak of alchemy and astrology. In addition, a distinction must be made between disinterested, unselfish forms of swindle and highly profitable ones. In trying to make this distinction, one will, I believe, find those forms that bring no personal advantage to be of much more ancient vintage.

Having mentioned alchemy and astrology just now, I may point out that those activities, held in disrepute by modern science, actually were the precursors of two important exact sciences, chemistry and astronomy, respectively. I have always considered it remarkable that the great Isaac Newton, so exact and profound in his physics and mathematics, spent a lot of his time on alchemy. The alchemists, whatever else they did, at least refrained from forming joint stock companies for the pro-

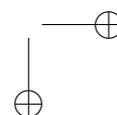
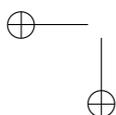


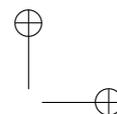
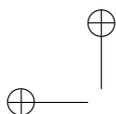


duction of gold. They certainly did not produce any, but required a lot of gold for their experiments: not dissimilar to our genetics companies, which could not exist without substantial money injections from heavy industry. The greedy and disappointed princes who financed the alchemists hanged them at decent intervals, an expedient not available to present-day shareholders. The retarded ancients simply had not yet heard of venture capital. And as for astrology, it was a prescientific attempt to look into the cooking pots of Providence. Now we do it by amniocentesis; whether more successfully remains to be seen.

Before there arose, in the Renaissance, the cult of personality, before with capitalism there appeared the breed of early art collectors who had sometimes more money than taste, lucrative swindles in art can hardly have existed. In the Middle Ages painters and sculptors mostly did not sign their work, they were artisans aiming at impersonal excellence. Their work was performed on commission by the church or by feudal lords. One did not buy a Cimabue, one bought a madonna. The concept of the genius had not yet been invented (that had to wait till the middle of the eighteenth century), nor were all objects touched by so divine a hand considered priceless.

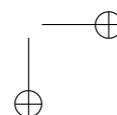
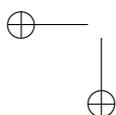
If there were swindles in the Middle Ages, they were of a sturdier kind: faked donations, faked decretals, several skulls of the same martyr, one when he was young, another of more advanced age. The manufacture of relics must have been a complex operation, far outstripping that of the Piltdown Man, one of the most celebrated scientific hoaxes of our time.

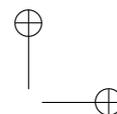
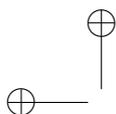




With the appearance of curio cabinets, art collections, and later, museums came the art fakers and their direct correlate, the art experts. It may have started with amateurs of forgery more malicious than avaricious, but with the wave of general professionalization that overrolled the preceding century, there came the true professionals of counterfeit, and there must now be people painting nothing but Picassos, Modiglianis, or Juan Grises. Our century has witnessed artificers designated by art history as forgers of genius. Foremost among them are Han van Meegeren, who managed to get his pastiches of Vermeer into the greatest museums of Holland, and Alceo Dossena, who specialized in sculpture. In the meantime, microchemistry, infrared, and X-ray have made the recognition of forgeries somewhat easier. It was, however, not long ago that one could admire huge and improbable-looking figures of Etruscan warriors in the Metropolitan Museum. They have now been retired, whether to the scrap heap, I do not know. Where there is money, there are charlatans; and there is no daub in the world for which an expert cannot be found to certify it for a fee.

Swindles in literature are of a different kind, direct profit rarely being the motive. There may have been instances where that was the case, for example, when spurious continuations of Cervantes's *Don Quixote* or of Goethe's *Wilhelm Meister* were published before the authors themselves got around to them. Or a work may occasionally have been attributed to a famous name, in order to enhance its circulation. When in the celebrated case of the *Letters of Phalaris* Richard Bentley showed them to have been forged, this was certainly more profitable to the great philologist than to the perpetrator,

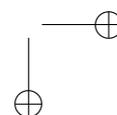
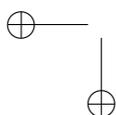


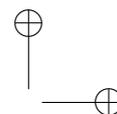
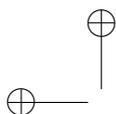


whoever he may have been. In any event, the forger – or maybe he was merely a writer of fiction – seems to have lived a very long time ago, in classical Attic times. The most often quoted mystifications in English literature were, however, no frauds in the ordinary sense. When James Macpherson fashioned, partly out of authentic texts, the several epics and poems that he ascribed to Ossian, an ancient Gaelic bard, he was riding the wave of the impending future: Storm and Stress, Rousseau, the romantics. That was even truer of that tortured boy genius, Thomas Chatterton, when he dreamed up the collected works of “Thomas Rowley,” a bogus poet of the Middle Ages. The numerous Shakespeare falsifications, the mass fabrication of letters that Byron never wrote, of first editions, doctored or faked, need only be mentioned. In general, one may conclude that all that can be done has been done, and sometimes also what cannot.

What, then, I should like to ask, are the main causes of all forms of intellectual malfeasance?

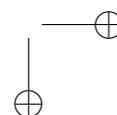
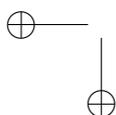
1. First and foremost, *greed*. That applies more to art than to, say, literature; but if one digs deep enough, it will generally be found to be the mainspring.
2. *Power*. A bishopric, an abbey or a duchy, acquiring property through forged documents, wills, donations, gains in influence, just as much as does a museum director, negotiating the acquisition of a Frans Hals portrait (before it is found to be painted with synthetic dyes).
3. *Reputation*. A scholar may claim the discovery of the missing books of Livy, an art dealer may say to have come upon an unknown Greco in a dusty loft, W. H.

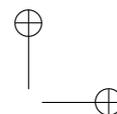
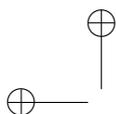




Ireland may publish a play by Shakespeare which he has written himself. They will gain reputation, but not for long.

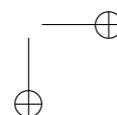
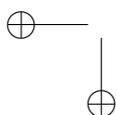
4. *Malice.* A bad or ridiculous product is palmed off on an adversary by affixing his name to it. (I am not sure that this form of persiflage belongs in the list.)
5. *Defiance.* This may be a subdivision of the preceding point. Out of a spirit of challenge to, or of contempt for, one's time, joined to a certain amount of sporting recklessness, a work is produced that only pretends to be serious, but will by the initiated few be recognized as satirical. Those who are taken in will call it a swindle. Sometimes the motive may have only been a foolish desire to probe with how much imposture one could get away with.
6. *Plagiarism.* The appropriation of somebody else's intellectual property is frequent, especially in literature and in science. In science it may take many forms, from the purloining of unacknowledged ideas and techniques down to the pitiful case of the man who lifted a whole string of mediocre papers from third rate journals and republished them under his own name in even measlier places.
7. *Politics.* The *Protocols of the Sages of Zion* have caused more bloodshed than Wallenstein, Tilly, and all the other generals of the Thirty Years' War taken together. (The civilized states of our time maintain entire bureaus doing nothing but forging. Whether that belongs to the catalogue of intellectual swindles, I am not sure.)

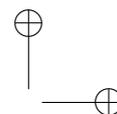
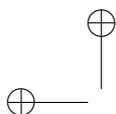




The foremost quality required of potential victims is, of course, credulity. The will to believe will take different forms in different times. Every period and every society think in grooves that are characteristic for them. In the early Middle Ages miracles were expected and therefore accepted. Later, people believed in the existence of witches, and the most horrible fabrications concerning their misdeeds were taken seriously by serious and honest people.* Even now in America, statements made by a banker and, say, a communist will meet different levels of trust. Each community shies away from devils of their own making: Albigensians, Templars, Jesuits, and now in the so-called Free West the phantoms of fright carry a different name. And so do also the miracles which we find worthy of belief. Those are all of a scientific kind. Incidentally, if science had erected as many and as strict safeguards as has the Catholic Church before certifying a miracle or conveying sainthood, there would be much fewer scientific swindles. It is true, however, publication would take much longer and many of those miracles would have ceased to be miracles. It used to be different, but nowadays reputation or acclamation in science rests on instant admiration, on a sort of lightning belief in marvels whose half-life is usually rather short.

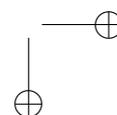
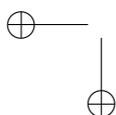
*Sir Thomas Browne, in *Religio Medici* (1643), Part I, Section 30: "For mine owne part, I have ever beleewed, and doe now know, that there are Witches." Sir William Blackstone, in *Commentaries on the Laws of England* (1769): "To deny the possibility, nay, actual existence of witchcraft and sorcery, is flatly to contradict the revealed word of God." To find comparable instances of equally strong belief now one must turn to science, for example, evolution or DNA.

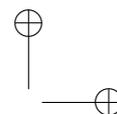
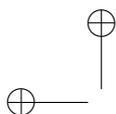




This change in climate is in my opinion one of the reasons for the increasing frequency of scientific cheating. Before that form of swindle is taken up, one facet distinguishing it from all other kinds of intellectual or aesthetic malpractice ought, however, to be considered. Our lives are, I hope, governed by reason, but that priceless faculty must share its dominance with another one that sometimes transcends or even overcomes reason or at least makes it feel uncomfortable. That faculty is imagination. In the lucky few in whom there has been an amicable compact between those two faculties we recognize what we may call a vision of the world. That vision may take different forms, but I should say that all great poets, painters, sculptors, composers have been gifted with it. Dante or Tolstoi, Michelangelo or Goya, Bach or Mozart: they have all expressed their vision in the fullness and integrity of their genius. Real faking in the arts and literature will, therefore, consist in prostituting those gifts, in the loss of sincerity, in feigning, in serving public taste, which is almost always corrupt taste. The swindles recognized officially, as it were, those comprising false attributions or fraudulent signatures, infringe proprietary values; but if they were valid works of art in their own right, the public could not complain. If a false Monet were as good as, or better than, a real one, what harm has been done? That this is rarely the case has to do with the more serious form of faking, mentioned just before, namely, that spurious substitutions and mystifications normally do not take place without the concomitant loss of integrity.

In science, the role of imagination and the part it takes in the formation of a vision of the world is much harder to

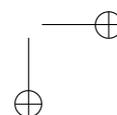
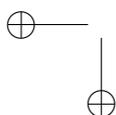


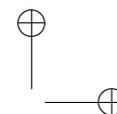
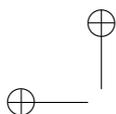


define. Too much imagination is deleterious to the scientist, for he certainly requires what the German language calls *Sitzfleisch*. (My little dictionary translates that as “steadiness,” but the more colorful expression means something like “a behind to sit upon.”) No imagination is even worse: one becomes a bookkeeper of banalities. The wrong kind of imagination, I should be inclined to say, defines the scientific swindler. Actually, I am afraid, there may be less to the whole thing than meets the eye, and the swindler is merely an adolescent playing the wrong games on the home computer. Childish, as he still is, if he had heard that there was something like the metaphysics of swindle, he might have given up: he flunked Philosophy 111 and hates metaphysics.

One could object that in speaking of works lacking artistic integrity, carrying spurious signatures, and so on, I have been talking only of those productions of inferior quality that have been found out. That is correct, and I am willing to admit that there may be more false paintings, for instance, by Frans Hals, hanging in museums and collections than have been recognized as fakes. The ones not yet incriminated are simply fakes of superior quality. And, similarly, I cannot escape the impression that there may be many more unrecognized swindles in the scientific literature than have been unveiled so far, not to speak of the innumerable incorrect results that were obtained by honest means. Being an optimist, I suspect that we have seen only the tips of very many huge stinking icebergs.

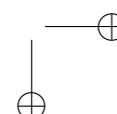
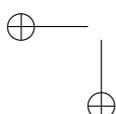
In the experimental sciences inductive reasoning has been dominant since the seventeenth century. What can be measured and weighed can be measured and weighed

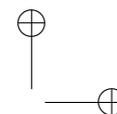
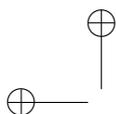




again. Swindles of lasting influence are, therefore, most unlikely to have been perpetrated. As long as the scientific establishment was very small and little glory accrued to the investigator of nature, there was hardly an incentive to malevolent cheating. There exists, moreover, a real urge to find the truth, be it ever so small, and to encroach upon the pure beauty of a truthful discovery would have appeared as an inherent contradiction. Of course, absolute and final truth does not exist in science – or at least did not exist before science became a sort of pseudoreligion in our time – and advances in scientific knowledge often derive from the correction of erroneous observations. Nevertheless, although some historians of science deny it, I believe that there operated for several centuries the principle of the self-correction of science. Experiments were relatively easy to repeat, conclusions relatively easy to verify, and the corrections that occurred within a short time had to do much more with errors than with swindles. Scientific disciplines concerned with the study of living organisms always faced much greater difficulties, and it is natural that they left more room both to honest mistakes and to dishonest machinations. In general, however, self-correction also functioned here.

Scientific facts are conclusions from a number of premises. The more complete and transparent the array of premises, the firmer and more definitive are the conclusions. In that manner, in the course of centuries a huge and cohesive network of interconnecting and partially overlapping facts has been established which we can call the scientific knowledge of nature. It is, however, a net not without holes, and some of the meshes are weaker than others. Furthermore, our understanding of nature

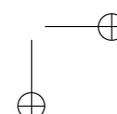
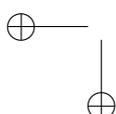


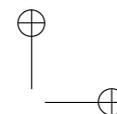
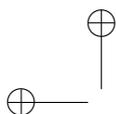


can never be complete, if it is based only on the natural sciences; and it would be safer to say that we know only that portion of nature that is susceptible of being probed by scientific methods. In other words, methodology represents a grid that partly reveals and partly conceals the whole of nature. It is, in fact, not impossible that those aspects of nature that do not lend themselves to scientific study will be made more obscure, receding into invisibility, owing to our methods of investigation. But they will persist.

Where the study of life and of living organisms is concerned the uncertainties mentioned before become more pronounced. It is, in some cases, very difficult to estimate the relevance of our findings to the object of our study. This difficulty provokes quite often a search for shortcuts, and that is where the swindler likes to hide. One of the most popular shortcuts is statistics, the science that straightens what is crooked and that can make the parallels intersect. There is, of course, a most legitimate use of statistics, but I have seen it, in my time, misused fearfully. When plastic surgery is to be applied to faked averages, statistics offers the sharpest of scalpels.

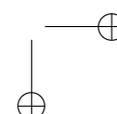
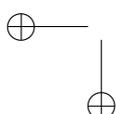
The main reason why scientific swindles have become more frequent than before, however, is the enormous and catastrophic growth of the scientific enterprise: an expansion that has been taking place since the Second World War. That was also the time when U.S. science became dominant, applying the native Rube Goldberg gift of fruitless complication to everything, regardless of whether it was or was not open to scientific investigation.

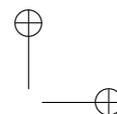
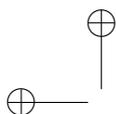




The pullulation of scientific journals; the rapid increase in the number of research laboratories and of research workers; the mechanization of techniques; the rise of entire new specialties and even new sciences: all that has created a megascience suffering from the pathological symptoms of gigantism. The excessive obesity of the scientific establishment in our time has had a number of effects.

1. The principle of the nearly automatic self-correction of science is no longer valid. Investigations, at least in those fields that are open to me, have become so expensive, so numerous, and so complex technically and materially that they are most unlikely to be repeated outright. It is much easier to begin a new piece of work than to repeat one already published. Were it not for accident, envy, or malice, many swindles would remain undiscovered. As I already said, I believe that most, in fact, do remain so.
2. Because of the tremendous growth of so-called scientific knowledge, research workers have become alienated from the cores of their respective disciplines. In other words, they can no longer know what they must know. In sciences partaking of two disciplines, for instance, biological chemistry, that estrangement goes farther; it finally reaches a climax in somebody like a biochemical geneticist who has to be ignorant in three huge fields. Owing to that overspecialization there are no longer peers left, but at best competitors. Journal editors are forced to decide from smell rather than from understanding whether to print a given paper.

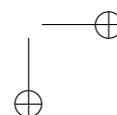
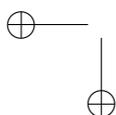


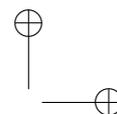
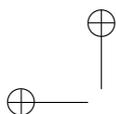


3. There is what I would call the crowd effect. Whereas thirty years ago investigations were performed, and their results published, by one, two, or three people; papers now carry eight, ten, or fifteen names, with the authors situated in different cities and even on different continents. Whoever has spent his life in the intimate companionship of a research laboratory of the old observance will know how different it was from what he encounters now.
4. Scientific research is no longer primarily a mental undertaking; it has become a technology, and an extremely costly one at that. Where one used to perambulate meditatively, stopping occasionally to inspect a flower or a shell, one now hires helpers to drill for exciting findings. It is hard to recall how unexciting and unexcited science was in America fifty years ago. There were no pressures, no money-granting government agencies, no achievement-greedy computerized bureaucracy. There was no National Science Foundation, no National Institutes of Health, and, probably, no scientific swindlers. Why should they have swindled? Nothing they could have found would have made any difference.

That state of unambitious, semisomnolent bliss came to an end, for some sciences with the beginning of the Second World War, for the biological sciences a little later, with the double helix. It was from that time on, and with increasing acceleration, that cheating in science became noticeable.

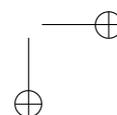
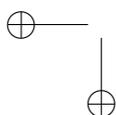
My knowledge of such misbehavior is far from complete. There are some books I do not read because I know

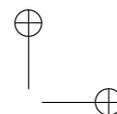
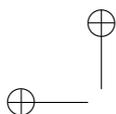




the authors, and so I have not studied the specialized treatises on swindles in science that begin appearing. My information comes principally from the *chronique scandaleuse* offered so abundantly in such weeklies as *Science* and *Nature*. Another rich source is *The New York Times*. I must confess that I found the examples spread out before me far from blood-curdling. They exhale the banality of evil when it is at its puniest. Now, real evil is far from trifling – there, I think, Hannah Arendt was wrong; and Hiroshima was a scientific horror of another magnitude than faking a distribution curve or substituting one radioisotope for another. What baffles me is that there were scientists who found it worthwhile to waste their intelligence on such junk. And so I began to think.

The first result of this rather unfashionable enterprise was to remember the title of a novel which Franz Werfel wrote when still very young. The name of the book was “Not the Murderer, the Murdered One Is Guilty.” The title stayed in my memory, not so much because I found it rather silly, but because it brought up the truly metaphysical question of guilt. I do not want to raise the scientific swindlers to the status of Dostoevskian heroes, for, speaking legally, their guilt is obvious: they have deceived the nonexistent, but all too often alleged “scientific community.” But does that answer the question “Who is really guilty?” I should not wish to go so far as to say “Not the swindler, the boss is guilty”; but surely all authors signing a paper are equally responsible for its contents. To see the luminaries, Pilate-like, washing their hands in aggrieved innocence, being supported in their bereavement by all the other big boys, has never



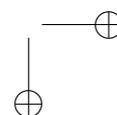
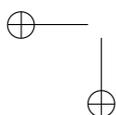


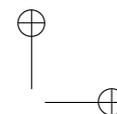
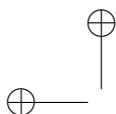
been a pleasant spectacle to me. It says, however, much about the way in which scientific research is done in our days.

The amount of wishful thinking that goes into research has been increasing enormously. We have been spoiled by our successes, since so many equations, structures, reactions that can be formulated on paper have subsequently been confirmed experimentally. The sleight of hand, which according to the dictionaries means both skill and trick, has become an important part of the toolbox of the investigator. If somebody claims to have cloned mice with the IQ of Japanese high school boys and you cannot confirm it, what does that mean? Your mice are not his mice, and, besides, you are simply not as good as he is. I know, I exaggerate, but not excessively.

Scientists are a sanctimonious lot. On the one hand, they become directors of genetic exploitation companies, engage in stock market speculations like grownups, hold their hands out for commercial millions, haggle about patents and engage in all practices of a corrupt marketplace; on the other hand, eyes raised up to the sublime, they expect their inferiors to live as in a monastery of the Middle Ages, adoring TRUTH and VIRTUE. In a world in which everything can be manufactured and sold if advertised, is it astonishing that there are some who succumb and manufacture scientific truth?

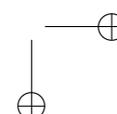
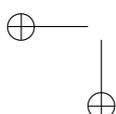
You see what I am driving at. We live in a very corrupt society in which publicity transcends reality, in which the image outshines the face, in which success is measured in dollars and the truth in decibels. It would truly be surprising if the works of the mind – and science is an

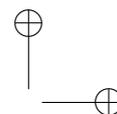
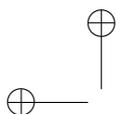




intellectual undertaking – were not contaminated by the cesspool in which they must function.

If I may make a prediction, I believe that there will be more and more faking and cheating in science, some detected, more undetected, until finally – not today or tomorrow – the whole machinery comes to a standstill because too many absurdities and falsehoods have come home to roost. Most people I know still are rightly opposed to lying and swindling. There still are, in private life, ethical barriers that have not yet caved in. But take courage. In an article on the “genetic revolution” in *The New York Times Magazine* of November 6, 1983, a Yale biologist is quoted: “Morality changes as the times change. What we deem unacceptable today could be embraced by generations in the future.” He is correct: everything will be embraced. Unless the atom bomb comes before.



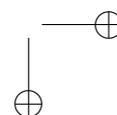
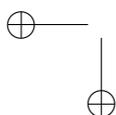


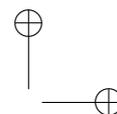
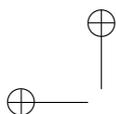
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TRISTITIA

It has taken me a long time to begin to understand why *tristitia* (sadness) is listed among the seven deadly sins. Even now I have my doubts. Lists have a hypnotizing effect. If you are in a strange city and you are shown the list of the five best restaurants, you want to try one after the other. Many people have tried to force their way through the Hundred Great Books, not because they were great, but because they were hundred, stopping usually forever in the middle of No. 3. When I was in Japan I was shown a list of the X best views of the Fujiyama; then there were also Y second best and Z third best views. I tried a few but observed not much difference.

The list of the seven deadly sins exhibits, however, a refreshing variety: pride, covetousness, lust, anger, gluttony, envy, sloth. (The last one is often divided into *accidie* or *acedia* and *dejection* or *sadness*.) Nevertheless, I know only a few people who have not attempted to work their way through the entire list. Comparing that catalogue with the Ten Commandments I find remarkable differences. The latter seem, for instance, to enjoin us from stationing MX missiles all over the place, whereas our statesmen could kill half the world without committing a deadly sin. All they need do is to act in humility; to refrain from plundering the enemy and from

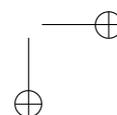
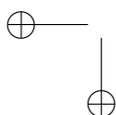


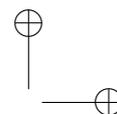
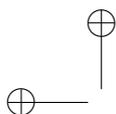


violating, or consuming, the female corpses; to do their deeds in cold blood; out of contempt, not envy; and, finally, not to worry about what they have done. One of these days we shall have a spectacular which will live up fully to all our expectations. How to commit bestialities in good conscience is a lesson that our century has taught us. I am surrounded by practitioners of this art, and lately we have been getting frequent refresher courses on radio and television.

But why sloth? Or call it *acedia*, torpor, dejection, depression. With the last word we have reached a complaint that seems to be widespread. Depression is so general a disease that there exists a profession claiming to combat or cure it. There may be a causal relation between ailment and profession, but not in the sense that one would first expect. Professions are not created by their necessity; they create their necessity. And so it may be that there are so many depressed people around because there are so many psychoanalysts and psychologists needing support. To put this rule in more general terms: Physicians make patients. Should I go further, should I extend the rule? Sages make blockheads? No, not yet. There are not enough wise men available to undertake the experiment.

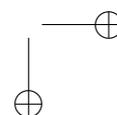
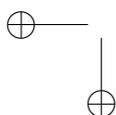
Some people are depressed because they cannot afford a Japanese video recorder. Against that complaint even the best products of the Swiss industry (I am not thinking of *Emmentaler*) are ineffective. What seems to be needed is money, so that they can take animated color pictures of the in-laws eating turkey with them at Thanksgiving. These people will, however, most likely continue being depressed even after their wishes are ful-

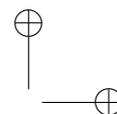
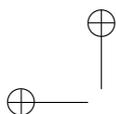




filled, for depression – undefinable, indescribable, sitting in the bones – is a shivering sickness, covering the globe. Its metaphysical roots, and I believe they go deep, are no longer visible but, it seems to me, they come from a struggle, fought in the heart of man, from an eternal unresolvable conflict: that he *cannot* do what he *must* do. The outcome of the struggle is complete torpor. There is one great example in the literature: Ivan Goncharov's Oblomov in the novel of the same name. The Russian language has created a word for that, and I have the impression that our entire world is covered by one huge progressive *oblomóvshchina*.

Sadness, *tristitia*, is, however, something different. It is a nobler and less stupefying affliction, if *affliction* is the word, one that can find expression only in poetry, and even more in music, or in the simple words of unaffected naive humanity. But that naturalness, still to be found in Johann Peter Hebel's or Lev Tolstoi's folktales, has been taken from us by our heartless, spiritless, posturing century, eradicating all immediacy, sincerity, spontaneity. Sadness is the feeling that comes over us when we see the leaves falling in autumn. We know, they will come back in spring, but shall we be here to greet them? It is with even greater sadness that we observe the evanescence of living beauty, of earthly perfection. The greatest sadness, though, and one bordering on dejection, is the sadness of growing old. It is the quietest of sadnesses, no Job tearing his garments and quarreling with his Creator, but most of the times it is a sadness entirely unrimmed with hope. The thin golden frame that used to surround the darkness within has been ripped from us by the evil winds of our times. There they sit, the old ones,





dejectedly composed, sliding down the gently inclined plane that nobody has ever climbed up, hoping faintly that they will mistake the dusk for the dawn. But that is granted to very few, and then it was no mistake.

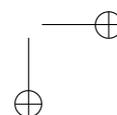
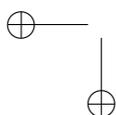
The poetry of the Elizabethan times is rich in beautiful lyrics lamenting the vanity of vanities. I quote here one stanza from a poem written in a time of plague by Thomas Nashe, a contemporary of Shakespeare. Its cadence expresses, better than my words can do, the feeling of deep sadness evoked by the inexorable wilting of living beauty, by the irreversible passing of time.

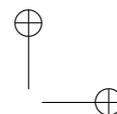
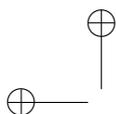
Beauty is but a flower
Which wrinkles will devour:
Brightness falls from the air;
Queens have died young and fair;
Dust hath closed Helen's eye:
I am sick, I must die.

Lord, have mercy on us!

Mercy is no longer a concept with which our chilly times are familiar. We know it only in its negation, merciless. But we should not forget that there were times, more naive, more immediate, yes, more human, when hearts could still find words for their sadness.

Why, then, is *tristitia* counted among the cardinal sins? I cannot read Cassian or St. Gregory, but I suspect that what they had in mind in proscribing torpor or sloth was the *oblomóvshchina* that often took hold of the early monastic settlements. I should have thought that, whereas lethargy is a paralyzing sentiment, sadness is a creative one. *Tristitia* was the mother of Bach's "Art of the Fugue," of the Second Part of *Faust*, of Beethoven's last string quartets. Without her the most beautiful



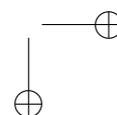
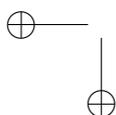


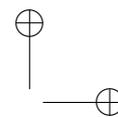
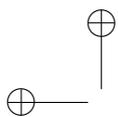
verses of our heritage would not have been written. She is the shadow without which Mozart's music could not shine with all its loveliness, with all its heavenly serenity.

The more surprised was I when I encountered the following statement of St. Thomas Aquinas: "Tristitia inter omnes animae passiones magis corpori nocet" (Among all passions of the soul sadness is the most harmful to the body). If we talk physiology I should have thought that, for instance, gluttony would qualify much better. I have come to the conclusion that the Fathers of the Church were against sadness because it is the strongest affirmation of the worth of the creation, distracting, in its very earthliness, the mind from the contemplation of eternity. With all respect, I cannot agree.

The autumn of the soul does not have to mean its fall. Most people, if they must get ready to take ship for eternity, would they not write HOPE on one sail and SADNESS on the other? In better times one would have said that, while they lived, they wept and sang. In the Balliol College Library in Oxford there is a commonplace book written by one Richard Hill during the first third of the sixteenth century. Following is one of the anonymous poems collected by him. The Latin refrain, also used by William Dunbar in a celebrated lament, means "The fear of death confounds me." Two words must be explained: *musket* is the sparrow hawk, *shent* means "destroyed."

As I me walked in one morning,
I herd a bird both weep and sing;
This was the tenor of her talking:
Timor mortis conturbat me.

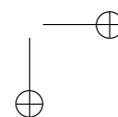
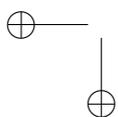


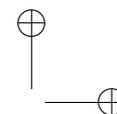
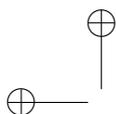


I asked this bird what he ment.
He said: 'I am a musket gent;
For dred of deth I am nigh shent;
Timor mortis conturbat me.

'Jesu Crist, when He shuld die,
To His Fader loud gan He cry:
"Fader", He said, "in Trinity,
Timor mortis conturbat me."

'When I shall die know I no day;
In what place or contrey can I not say;
Therefore this song sing I may,
Timor mortis conturbat me.'





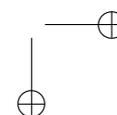
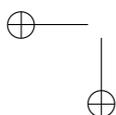
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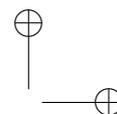
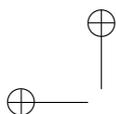
UNFORESEEN CONSEQUENCES

Risk assessment is now a kind of science, as evidenced by the existence of several textbooks. This only shows that after the barn had been robbed bare and naked it was time for the closing of the barn door to become a matter of study and research. I am, actually, in favor of the pessimism of popular wisdom, which assures me that things always come out differently from what one expects. What risk assessments, impact statements, and the like retain, after their misjudgments have become historical, is an alibi function. When the great Munich comic Karl Valentin appeared on the scene wearing spectacles without glass and his attention was drawn to the defect, he answered "It's better than nothing." This also applies to such exercises in crystal ballistics.*

I have been told that in the many discussions that preceded the first use of the atomic bomb its explosive power was much guessed about, but that fallout and radiation were not taken into account. Whether that is true I do not know. It would not surprise me if it is, for experts must wear blinders: a wide field of vision would disturb them. Not that the people who contemplated the destruction of Hiroshima and Nagasaki would have waited for an environmental impact statement: the more

*I know, I know, puns are forbidden in English. But is that not a nice name for the science of futurology?



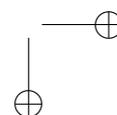
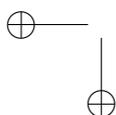


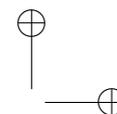
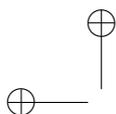
disastrous the consequences, the more welcome to the planners. The warfare that governments and institutions conduct against their own people is, however, of a subtler kind and does require some circumspection.

The trouble with our earth is that, when it was designed, no provision for wastebaskets or something similar was made. The waste that living beings produce out of their own is capable of entering the great circulatory routes that maintain the conservation of matter, so that nothing has been added or taken away since the beginning of the world. Excretions and excrements, rotting corpses and moldering trees: all can be taken care of in its own good time. No wastebasket is needed; the earth, always renewing itself, creates life out of death, proliferation out of decay.

It is not easy to determine with certainty at what time the disturbance of that balance was first noted in the literature; a disturbance due undoubtedly to many factors: the inordinate growth of industry, the change in mortality rates, but especially the change in the modes of living. Passing references to the nuisance of charcoal burning and similar complaints do not count, but dyehouses were more noticeable. Nothing, however, seemed irreversible: oceans surged, rivers streamed, winds dispersed. A short space away from the cause of annoyance, and all was again perfect, the balance intact. That neolithic housewives beat their rugs or dusted their balconies as often as Swiss ladies do is, however, unlikely. Even the civilized world tolerated, in ancient times, much more dirt and mud than we do at present.

With the emergence of the chemical industry and especially with the manufacture of synthetic dyes, first in

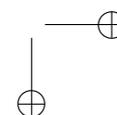
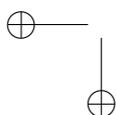


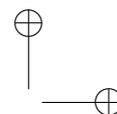
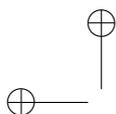


England, then in Germany and France, all that changed. Very outspoken statements about the pollution of the Thames and the killing of fish appear in T. L. Peacock's *Gryll Grange* and G. R. Gissing's *The Nether World*, that is, from about 1860 on. The chemicalization and plasticization of daily life began, I believe, around the time of the First World War and has progressed enormously during the last forty years. For a long time nobody seemed to bother very much about the impending doom; such words as *pollution* and *environment* were late in entering the conscience of the public.

It is, of course, not only the chemical industry that has placed an intolerable load on the homeostasis of the world. Waste gases and fluids from all sorts of factories, automobile and airplane emissions, ionizing radiation from nuclear installations, and so on, continue poisoning earth, water, and air. The measures to prevent further deterioration of which the industrial countries seem capable are ridiculously inadequate. The truly gigantic efforts that would be necessary in order to stop further irreversible damage to nature will not be made. It is to be expected that the mess will grow unabated and that the children of our children will look at our miserable time as the Golden Age.

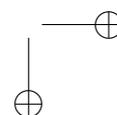
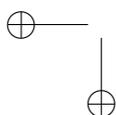
When the dynamo, the combustion engine, and innumerable other beautiful contraptions, contributing so much to the comfort and the power of mankind, were invented, I am sure that there were many predictions about the enormous benefits that would be accruing, but whether there were any voices pointing out that there is no free lunch I do not know. Those came later and even now they are in a woeful minority. Our society is so con-

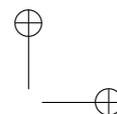
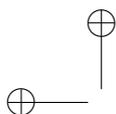




structed that people can think only in chorus, and even the choirmaster whom they believe they have elected will think only what the polltaker tells him he ought to. We live in times in which in reality very little happens, but we do not notice it because of the tremendous circular razzmatazz.

The utter pessimism that breathes from these lines is due to several considerations. 1) It is impossible to return to an earlier stage of civilization although it may have been a higher one in moral and intellectual respects. 2) At no other time in history, I believe, have people been so prone to regard as entirely indispensable ostensible comforts of whose possibility they had had no idea two years earlier. 3) The social and economic fabric of the industrialized nations has become so dense a tangle of interrelationships and dependencies, so extremely fragile a structure of multiple nets that even the slightest attempt to interfere with one or the other of the meshes is likely to have a disastrous effect. One could, in fact, call political economy the foremost science of unforeseen consequences. 4) The spuriously sybaritic and shoddily consumeristic pattern of life of the Western world appears to have a narcotic or soporific effect on most of its beneficiaries. They can barely think from one installment payment to the next. Hence, the failure of alternative movements. A politician with the courage to paint the hyper-Spartan future required if our world is to be saved would receive ten votes. 5) The attraction of that paradise on earth, America, seems to be so great that the countries carrying the rather silly designation of “developing nations” cannot wait until they can match the pollution, traffic accidents, and criminality of their

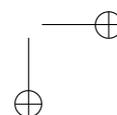
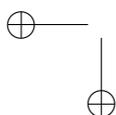


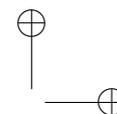
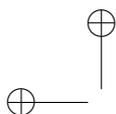


paragon. 6) Even in the communist countries, with their different political, social, and economic organization, the preservation of nature, the intactness of the environment, are guaranteed no better than under capitalism. The key may be different, but the tune is the same.

The reason for this lack of alternatives (except for those offered by relatively small groups who, it seems to me, have so far failed to develop a firm theoretical underpinning), the reason, then, may be seen in the often alleged fact that ours is the age of science. First-rank scientific research belongs to the most unpredictable occupations. When Otto Hahn began playing in the laboratory with uranium he really could not have foreseen that six and a half years later hundreds of thousands would be dead and dying because of his pretty experiment. That is the way with pure science: when the snake offered the dire apple (the most successful campaign of the oldest advertising agency in the history of the world), only he knew what all would come of it. I should say that until recently the lonely researcher in his laboratory could have considered himself as innocent, at least to the extent that he felt himself to be one of many thousands carried by an irresistible current to ever greater achievements of science. The only thing that theoretical science can do is to advance, and the scientist was taught that the progress in his understanding of the principles of nature was a good thing, devoid of consequences, except for the increase of the sum of human knowledge, which he was to regard as desirable. His work, he was told, belonged to a region where value judgments were meaningless.

It is hard for me to be certain, but I believe that was also my attitude when I entered scientific research. As

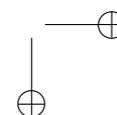
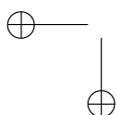


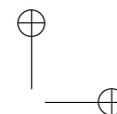
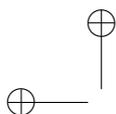


I look back I doubt, however, that this attitude ever corresponded to reality. There is nothing in this world that we can do without consequences, and those are, unfortunately, mostly unforeseeable. What is new, however, it would seem to me, is that they now are very often also irreversible.

It is the now customary, almost immediate application of scientific discoveries that has completely changed the role of science. There is no time to weigh the reasonableness of innovations and to adapt oneself to them gradually. Whatever can be sold must be sold *en masse* and right away. Poor Pandora would be quite out of breath, so often must she run and renew the contents of her box. At the time of writing, it is the personal computer and the word processor that are the generally acclaimed answer to nobody's prayers. There will no doubt be other contraptions later, and they will be the junk of the future, rusting in basements and garages.

Unpredictability is almost built into all that human beings do, and experience shows that they seldom learn, despite such assurances of popular wisdom as "The burnt child dreads the fire" or "Once bit, twice shy." Just as man is strong only when he knows how weak he is, he is wise only when he knows how foolish he is. Such forms of dialectical skepsis, of cautious moderation, have become very rare in our time. We have not even learned that the way to ecological hell is paved with the optimistic forecasts of approved experts.





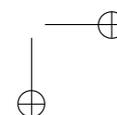
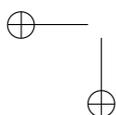
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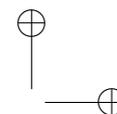
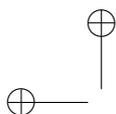
VIRUS

Anybody who likes to think about nature may spend a minute or two contemplating the virus. Viruses, it once seemed to me, were the principal weapons with which the Universe, the lifeless Universe, combated Life, the only invader of its eternal quiet. It lost. In using the word *combat* I am, of course, thinking not so much of the nuclear gamecocks in the war department as of the great and dark philosopher Heraclitus whose fragment No. D53 begins with these words: "War is father of all and king of all." The war, *polemos*, meant by the somber thinker has presumably little to do with what virile peoples have always liked to do to each other; it is the abbreviating outgrowth of the universal principle of opposition which Heraclitus was the first to formulate. It is by means of equilibria that our world exists.

Life means proliferation and requires, therefore, Death as its necessary correlate. But a lifeless Universe is not the same as a dead one: it never knew Life; and it is quite understandable why the great physicist Pascal found the eternal silence of the endless spaces so frightening. We can understand antilife, we can understand lethality; but we have no organ for nonlife.

What goes for nonlife, also applies to half-life. That term does not seem to make sense, and still it describes the viruses, for they are entities that can multiply only

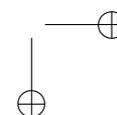
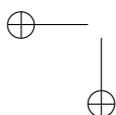


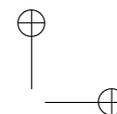
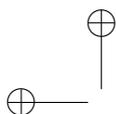


on or in suitable living cells. But when they grow they breed true, as it were: they carry the necessary genetic instructions within themselves, though lacking the apparatus required to follow them. The realm of viruses is enormous and they exhibit widely varying degrees of structural complexity and of host specificity. At their simplest they are composed of a deoxyribo- or ribonucleic acid, carrying the genetic information, and one or more protein molecules which, among other things, probably direct the virus in its choice of host cells.

As regards the finding that some viruses contain RNA, not DNA, it may be remembered that twenty-five years ago there was a lot of noise made about the so-called Central Dogma of Biology, which postulated that the flow of genetic instruction always went from DNA to RNA and then to protein. Nature never having heard of such a Dogma, this was disproved a few years later, so that first the promulgators and then the refuters of the premature edict could in due course receive equivalent laurel wreaths: one of the quickest examples of scientific progress. There may exist, incidentally, even more primitive examples of half-life, consisting only of protein.

It makes little sense to ask for what purpose nature has created the viruses. Purpose is a treacherous category when contemplating nature. If it were true, which it is not, that all viruses kill their hosts or, to put it differently, that there exist no living cells for which there are no viruses capable of destroying them, a Heraclitean picture of living nature as perpetual warfare could be painted. Such a war could, however, not be everlasting, for with the destruction of all hosts the viruses as well would



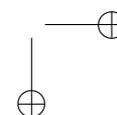
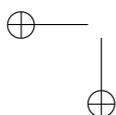


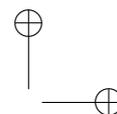
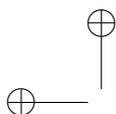
have to go out of circulation, and a dead world would gradually fade back into a lifeless one.

Nor can much be said about the origin of viruses. Are they halfway stations on the way to living systems? Are they products of degeneration of fully viable chromosomes? Are new and different viruses created all the time? Or is their increasing number merely a function of the increase in virologists? (That science often creates the objects of its researches is not being realized sufficiently.)

In any event, we live in a paranoiac world, illuminated bleakly by the frightening debut of the AIDS virus, the agent giving rise, as its acronym implies, to the acquired immune deficiency syndrome. Did that virus really only recently leave the domain of some green monkeys in Africa, in order to embark on a career that may make it a rival of the Black Death of ancient times? Or did it originate in an entirely different manner? If in a time so enlightened scientifically as ours such a horror can step forward boldly, what else will? Many have thought that the time of the great epidemics was past, but here did one appear that science is not yet prepared to handle. We are reminded of the early history of syphilis, whose sudden appearance in the early years of the sixteenth century remains baffling although majority opinion seems to connect it with the discovery of America.

It has always been a frightening experience for me to encounter situations in which all the trappings and tapestries of progress and civilization are torn away, revealing human horror and hatred in their primeval nakedness. The treatment of the Jews, the Gypsies, and other proscribed minorities during the thirties and forties



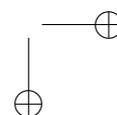
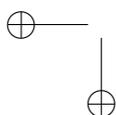


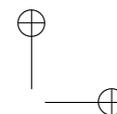
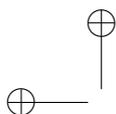
of our century in Germany and Austria offer, perhaps, the outstanding examples; but reading about the popular reaction to the emergence of AIDS I wonder how long it will be till the lepers' rattles are again heard in the streets. We have all been spoiled by the pretension of science to explain it all. Great is therefore the panic before the inexplicable, and made even greater by the irresponsible noises of the mass media.

Medicine is certainly not an exact science and the catalog of virus-induced diseases is probably far from complete. Still, a disease attacking the helper T-lymphocytes, the very cells enabling the body to build up immunity to invaders, could hardly have been overlooked for long. It is probable that AIDS appeared with the suddenness once ascribed to syphilis. This may, for instance, have been due to a mutation which altered the host specificity of the virus, but there could be many other causes. Our ignorance has, I believe, to do with a principle that I have not seen stated before: the more researchers there are, the more scientists are able to go into the particular, the less able we become to recognize the general. Too many exceptions disprove the best law of nature, or at least they make us believe that they have disproved it.

Origins are always veiled events, taking place in shadow regions of which we can have only indirect and uncertain knowledge. Some years ago, when genetic engineering was only in its beginning, I wrote a letter to the magazine *Science* in which the following words occurred:

The worst is that we shall never know. Bacteria and viruses have always formed a most effective biological underground. The guerilla warfare through which they act on higher forms of life is only imperfectly understood. By adding to this arsenal freakish





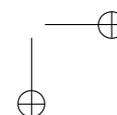
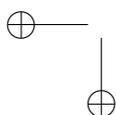
forms of life. . . we shall be throwing a veil of uncertainties over the life of coming generations.

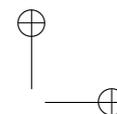
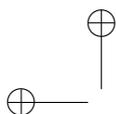
My letter brought me much mail, not all exactly friendly, for our society is not used to scientists warning against phantasms of progress. Some of the reactions to my remarks also showed me that I was misunderstood as being particularly afraid of the deliberate production of harmful strains. This was, of course, not the case; the key phrase of my intervention was the “veil of uncertainties.”

I had thought to myself: If the manipulation of genes, the recombination or insertion of all sorts of DNA, continues on a large, or even industrial, scale, the likelihood of the thoughtless discarding or the inadvertent discharge of byproducts having, under certain conditions, biological activity will increase enormously. But, as I wrote, “we shall never know.”

The sudden, inexplicable appearance of a dangerous virus is exactly the type of thing I apprehended. Lest persuasiveness be interpreted differently, I must emphasize that I do not believe at all that the AIDS virus could have been produced, wittingly or unwittingly, by genetic engineering. For that, the technology is not yet far enough advanced, and the time elapsed since genetic manipulation began too short. Also the genetics companies probably have better ways of using up their backers’ money, although, once a vaccine is found, this will certainly be a very lucrative item.

But uncertainty will persist and it will grow. Nor will it be assuaged by the assurances of experts, for we have learned not to be afraid of what experts fear, but to be frightened by what they do not. The trustworthiness of



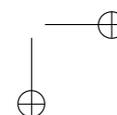
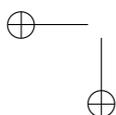


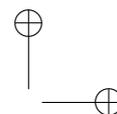
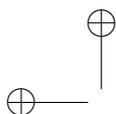
experts, never very high, has been diminished enormously by the rapidity of research advances. The specialist may exhaust the past, but he must be overwhelmed by the future.

In any event, even if I am assured that apprehensions about the fruits of genetic engineering must be due to some form of insanity, my answer is that the mass of people, the public, have always, whenever they woke up from their television slumbers, exhibited a streak of paranoia. Masses have seldom reacted rationally. Individuals, attempting to keep a measure of reason, must nowadays carry on a desperate struggle not to be submerged in the statistical glue.

When I was a child, many years ago and on another continent, the visible dangers that threatened us were fewer than they are now. The greatest was perhaps to catch one or more of those horrible diseases, diphtheria, scarlet fever, whooping cough, not to speak of such slower killers as tuberculosis. Kidnapping and child murder occurred only in fairy tales or possibly in distant America. Unseen dangers I do not remember ever to have heard mentioned. The word *environment*, although known to the dictionaries for 150 years, was not heard. Industry was not yet recognized as the poisoner of soil, water, and air; radiations were unknown. Trees died when it was God's will. The clouds and the birds that flew in the sky did not interfere with the ozone layer.

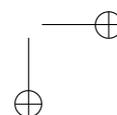
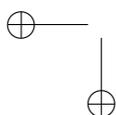
The technomania governing our present life has changed all that. The unseen dangers have multiplied to an unbelievable extent. That we still survive – drinking the water, eating the food, breathing the air that we do – testifies to the enormous flexibility of the human organ-

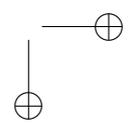
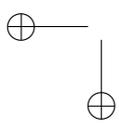
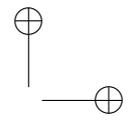
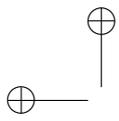


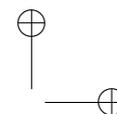
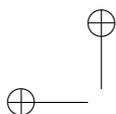


ism. Many plant and animal species have long given up. But survival is not enough: one has to remain human. And there I have my doubts. Even more astonishing than the adaptability of the human organism to toxic insults is the growing power of cretinization exerted by institutions and corporations. Twenty years of American broadcasting and you can make a Saulus out of any Paulus. The invisible dangers, chemical poisons, carcinogenic agents, ionizing radiations, may be hidden from us successfully for some time, but not forever. Just as the fooled organism responds with cancer, the overloaded environment will collapse. If in addition to poisoning the atmosphere we also contaminate the biosphere, this time irreversibly, we increase immeasurably the uncertainties that will weigh on future generations. Ours is, in fact, the first generation that has dared pawn the future: think of the consequences of burying the nuclear ashes which will radiate for tens of thousands of years. The stupid wager that we are making hereby indicates perhaps how little future we believe we have.

We may be right. If I am convinced of anything it is that there are limits, barriers that cannot be crossed because they must not be crossed. This, presupposing some moral sense on the part of scientists, shows how touchingly utopian I have remained, instead of which they are peddling embryos or implanting a "biochip" in the brain of a monkey who thereupon began talking Japanese.





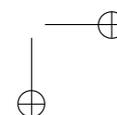
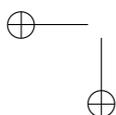


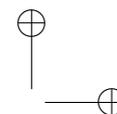
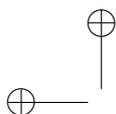
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WAR

Wars: before they begin, they belong to the diplomats; while they are being fought, they belong to the generals; when they are over, they belong to the historians. Those who have suffered and died in and through them, the nonspecialists, are only the pedestal on which statues are erected to those with names. When the statues have reached a venerable age, they are transferred to museums; the pedestals are left to crumble to dust. In history-minded times the dust particles can be counted, and so you may read that when Napoleon marched into Russia the *grande armée* numbered about 600,000 and that fewer than 100,000 came back. In the First World War about 10 million are said to have perished. As to the Second, who can really know? The epidemiology of death had changed color: the Brown Death, so much more devastating than the Black one ever was, has killed and burned untold millions, not to speak of the sieges, the battles, the bombardments all over the world. Alone in Russia 20 million are estimated to have died.

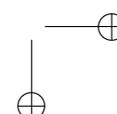
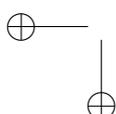
I have said that wars, when terminated, belong to history. But are they ever terminated? Much rather it seems to me that all past and present wars form an enormous network of smouldering slow matches, as it were, a giant web of wicks on which the history of mankind rests. The conflagrations observed at ever increasing intensity

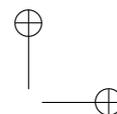
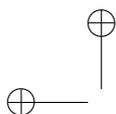




and frequency may often have origins that are hidden to us. Since all branches of knowledge have now been turned into explanatory sciences, we are, of course, given all sorts of explanations concerning the causes of past wars. It is sufficient, however, to choose one event and to read what history books had to say about it a hundred years ago or seventy or forty, in order to recognize how much these accounts change with the winds of fashion. Unreconciled, as I am, to the notion that we now have reached the peak of perfection, I am accepting the pearls of current wisdom with great reserve. The map of our globe has, in fact, remained to me the same as in ancient times when several regions, crosshatched discreetly, carried the warning “Here dwelleth monsters” – except that now I see these words covering the entire map.

That human nature has, at least so far as its inheritable characteristics go, changed in the segment of time that we can perceive, I deem very unlikely. If the propensity for warfare is one of the attributes of that nature, then we have – and not only in that respect – remained motorized Neanderthals. What has changed is not our inclination, but our ability; for instance, our ability to deceive. I doubt that the chieftain of a band of primitives would have concealed his purpose: he went out to slaughter. What he had in mind were the three great F’s: Food, Females, Fortune. A fourth F, Freedom, hardly entered his imagination. But it was in our lifetime that the word *war* has been pasted over with the transparent label *defense*. We attack Vietnam or Afghanistan to defend ourselves, just as Hitler had to defend Germany against the Poles. *Bella gerant alii*, “Let others wage war”; we





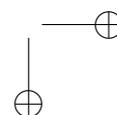
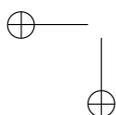
defend ourselves, offensively, and shall, therefore, go to Heaven as aggrieved lambs.

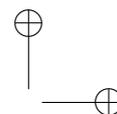
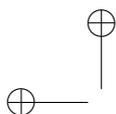
Etymologically, the word *war* comes from roots signifying confusion and possibly also ruin and extinction. When that remarkable poet and (less remarkable) statesman, Fulke Greville, First Lord Brooke (1554–1628), wrote his long poem *A Treatie of Warres* during the reign of either Elizabeth I or James I he was certainly not aware of, nor did he care about, the linguistic origin of the word. Stanza 6 goes as follows:

If *Peace* be such, what must we thinke of Warre,
But Horrour from above, below Confusion,
Where the unhappy onely happy are,
As making mischiefe ever her conclusion;
Scourges of God, figures of hell to come,
Of vanity, a vaine, infamous tombe.

Here we have them all, the horror, the confusion, the figures of hell. Further on, in Stanza 29, he repeats: “Warre, the perfect type of hell.” Obviously, General Sherman was not the first to describe war as hell, although the great dispenser of hell surely knew what he was talking about.

Were one to make a conspectus of war poetry during the ages, one would probably find the Kiplings much more frequent than the Grevilles, at any rate in the Western world. (I remember reading some marvelous antiwar poetry from medieval China.) The sort of thing I have in mind is well represented in the following lines written at about the same time as Greville’s verse (from a “Song” by John Pickering):





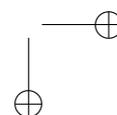
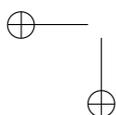
Farewell, adieu, that court-like life!
To war we 'tend to go:
It is good sport to see the strife
of soldiers on a row:
How merrily they forward march
Their enemies to slay!
With hey trim and trixy too
Their banners to display.

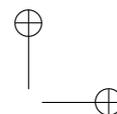
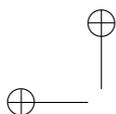
That is the way it has gone on most of the time: flag unfurled, cannon roaring, trumpet blaring, drum booming, pennants fluttering in the winds of honor, courage, virility, self-sacrifice, love of one's country, fidelity to the emperor, king, Führer (teutonicus), or whatever the pack at the top is called. An age-old version of Pascal's celebrated wager: Since you must die anyway, why not die for a cause? We are all condemned to death, so why not give a sense to your life, a dignity to which you could not aspire otherwise? Aureoles, unattainable to your poor little selves by other means, are promised by art, literature, philosophy, theology; the entire publicity machine of the history of the world is let loose on you. "Tell them, oh stranger, in Sparta, etc. etc."*

Even the skeptic, faced with uncounted haloes dripping blood, hesitates for a moment, but not for long. Before his mind there arises an endless procession; he could watch them for a hundred years, as they hobble past,

*The standard translation (by Mackail) of the famous epitaph by Simonides, in honor of the warriors of Leonidas who fell at Thermopylae, reads: Go, tell the Spartans, thou who passest by,
/ That here obedient to their laws we lie.

I have tried to evoke the original meter of the Greek distich: Tell them, oh stranger, in Sparta that here you saw our corpses / Lying obedient to those holy commands of the state.

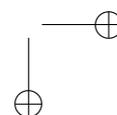
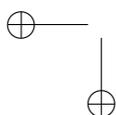


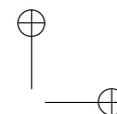
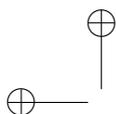


and still they would be coming, the greater half of the world, the victims, the sufferers, the nonheroes, the mothers, the orphans. Seeing that throng of woe and misery, he hesitates no longer. How could a thinking man be in favor of war? Does that mean that the skeptic has become a pacifist? Not really; at least, not in a proselytizing manner. He has no hope: he fears that Man has remained a preying, bloodthirsty carnivore who now, at the climax of his progress, does not feel happy unless he has consumed, every day, several hours of simulated violence on the flickering screen. “The Education of the Human Race,” the title of an eighteenth century treatise by the great German writer Lessing, has been going on for thousands of years, but the students either died, often in wars, before graduation, or they played truant, having better things to do than to listen to anemic vegetarians.

The religions of love – love of God, love of one’s neighbor – have helped themselves by defining strictly what is meant by the one and by the other. Clearly some people are more truly neighbors than others: St. Thomas of Aquino goes to great lengths to define, in the *Summa*, when a war is a Just War. And now, when we have professional ethicists, bladeless knives without handles, to use Lichtenberg’s phrase, we can be sure that they are busy defining the circumstances under which a “first strike” is not only ethically permissible, but morally imperative. Those conditions, elastic like the best rubber, will presumably be similar to those of a Just War.

Theologians, beginning with the great thinkers of early Christianity, and philosophers have often speculated about the embarrassing phenomenon of war without, I believe, a lasting effect on humanity. When Immanuel



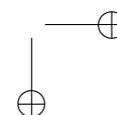
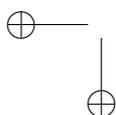


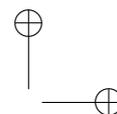
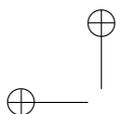
Kant wrote his great little book *Zum ewigen Frieden* (On Eternal Peace, 1795) he stood on the fertile soil of the Enlightenment which swept Europe and reached even the slaveholders of America; but his noble thoughts had little influence. *Pacifist* has remained a term of abuse in which, I am sure, the Komsomols of Soviet Russia would be as willing to indulge as the National Rifle Association of America. Some people have told me: "If only women could dominate the world, as men have done till now, there would be no more wars." I doubt it. Inspection of Mrs. Thatcher makes one wonder; it is, however, possible that she could not have been elected if the franchise were limited to women.

One philosopher who had given much thought to the moral and social implications of war was William James. When I was a very young man, before I read American literature, he had endeared himself to me by identifying the bitch-goddess Success as the most devastating idol of America. Later, it was he and Henry Adams who redeemed my initial disappointments. In James's *The Varieties of Religious Experience*, Lectures XIV and XV are titled "The Value of Saintliness." In a profound discussion of the power of an ascetic life, there occurs the following passage.

The metaphysical mystery... that he who feeds on death that feeds on men possesses life supereminently and excellently, and meets best the secret demands of the universe, is the truth of which asceticism has been the faithful champion.

He then considers where remnants of the ascetic life, so highly esteemed by him, may be found in a time that worships material luxury and wealth. He finds

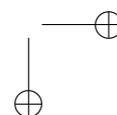
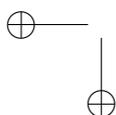


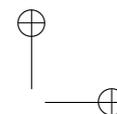
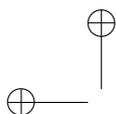


traces of an ascetic discipline in “athletics, militarism, and individual and national enterprise and adventure.” (James must have seen a different “enterprise” from what I can make out: I see nothing ascetic about it, but only clowns dancing nimbly on a volcano.) He then goes on:

War and adventure assuredly keep all who engage in them from treating themselves too tenderly. They demand such incredible efforts, depth beyond depth of exertion, both in degree and duration, that the whole scale of motivation alters. Discomfort and annoyance, hunger and wet, pain and cold, squalor and filth, cease to have any deterrent operation whatever. Death turns into a commonplace matter, and its usual power to check our action vanishes. With the annulling of these customary inhibitions, ranges of new energy are set free, and life seems cast upon a higher plane of power. The beauty of war in this respect is that it is so congruous with ordinary human nature. Ancestral evolution has made us all potential warriors; so the most insignificant individual, when thrown into an army in the field, is weaned from whatever excess of tenderness toward his precious person he may bring with him, and may easily develop into a monster of insensibility.

Well, ancestral evolution, whatever that is, must have skipped the present writer: he has never considered himself a potential warrior. And as to monsters of insensibility, his reading of political news from Washington has convinced him that they are to be found more frequently outside of the army than in it. But it must be conceded that James reproduces, eloquently and, one would even say, profoundly, the prevailing view of thousands of years. On the part of the male, the urge to fight and to kill has always been considered to be as strong as, or even stronger than, the sex urge. The killing part is usually passed over in silence, as it is by James; it is the



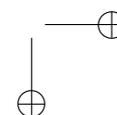
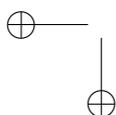


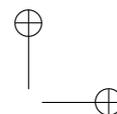
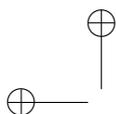
“strengthening of the moral fiber” that is emphasized. I consider that as complete nonsense: there is no such thing. If people want to strengthen their moral fiber, they ought to stop spending their money on personal computers and saunas and, instead, help the hungry and homeless.

One more passage by James must be quoted; it is perhaps the decisive one.

Yet the fact remains that war is a school of strenuous life and heroism; and, being in the line of aboriginal instinct, is the only school that as yet is universally available. But when we gravely ask ourselves whether this wholesale organization of irrationality and crime be our only bulwark against effeminacy, we stand aghast at the thought, and think more kindly of ascetic religion. One hears of the mechanical equivalent of heat. What we now need to discover in the social realm is the moral equivalent of war; something heroic that will speak to men as universally as war does, and yet will be as compatible with their spiritual selves as war has proved incompatible.

The moral equivalent of war: noble words; yet, they were written before Verdun and Stalingrad, before Auschwitz, before Dresden and Hiroshima. William James (1842–1910), with all his critical and questioning mind, was a late Victorian. The lectures from which I have quoted here were, in fact, given in the year of Queen Victoria’s death. Much happened in James’s lifetime. It was then that the seeds of our present misery were planted; four years after his death the fields were ready for the first harvest. Much had also happened to the connotation of war. In the Franco-Prussian War of 1870–71 215,000 were killed, and 10 million from 1914 to 1918. The battle had become a *Materialschlacht*, a battle of

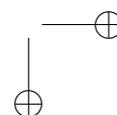
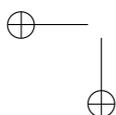


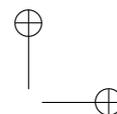
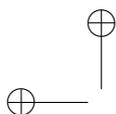


materials, which also included the *Menschenmaterial*, the human material. Those who ran out of materials first had lost. At that time, the “human material” consisted mostly of soldiers; in the Second World War it was the civilian population that was slaughtered.

Let me ask the very decent ghost of William James: the moral equivalent of which war? Of the wars that took place before the French Revolution? “With hey trim and trixy”? Or the war of Treblinka and Nagasaki? I have long thought of their moral equivalent and come up only with hell. This may even be an overestimate of hell, unless the Devil has already equipped himself with star wars software. An unlikely event, as the Devil’s hell, in contrast to others, runs on a very tight budget. In times like ours, there can be no moral equivalent of war. There could only be a complete renunciation of all forms of violence and coercion. That this is a vapidly utopian expectation a few hours of watching television or a couple of days of newspaper reading will convince you. In *The Brothers Karamasov* Ivan, in a conversation with his brother Alyosha, tells of a small child who in his martyrdom cries out to his *bózhen’ka*, his “little God,” and nothing happens; and he uses the parents’ cruelty to children as an argument against the Creator. These must have been rare newspaper clippings in Dostoevski’s time. Had Ivan Karamasov had an opportunity now to read *The New York Times* for a few days, with all the crime and torturing, his shudder before the incomprehensibility of the world would have heightened enormously.

Whatever happened to the chromosomes of humanity in those millions of years, they have certainly not yet been programmed for peace and quiet. Long before the

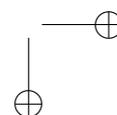
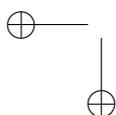


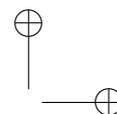
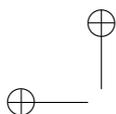


required mutations have occurred, mankind will probably have wiped out itself. There have, however, been attempts in this century to establish the moral equivalent of war by institutionalization: first the League of Nations and later the United Nations – with what success any observer of these noble undertakings may decide for himself. He may come to the conclusion that they were better than nothing, but not much better. The United Nations served perhaps to decrease the number of *declared* wars, but hardly the incidence of war itself. In the recent past, the demise of the institution has been, I am afraid, initiated by an attack on one of its least controversial agencies, UNESCO. First the United States and then Great Britain renounced their membership, presumably after becoming aware that the majority of the delegates' faces were no longer decently pink.

The more I thought about the phenomenon of war and what it taught me about human nature, the more disheartened I became. This happened first to me when I was almost a child; it was the end of the First World War. I must have been extremely juvenile, for I remember that it was then that I decided to declare formally my secession from mankind. It was the time of a great wave of antiwar literature, and not only on the losing side: Henri Barbusse and Leonhard Frank, Romain Rolland, Georg Trakl, and, especially, Karl Kraus with his giant drama *The Last Days of Humanity*. Much later I got to read Wilfred Owen's *Anthem for Doomed Youth*: "What passing-bells for those who die as cattle?"

And still, they continued dying as cattle, in all those years since 1918; but next time death was not reserved for the young, and millions died in slaughterhouses. Now the



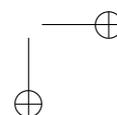
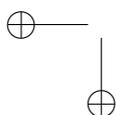


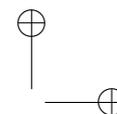
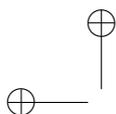
Nichtgötterdämmerung, the Crepuscule of the Nongods, is being prepared for us by physics and engineering. These preparations are tolerated silently or greeted with applause, because they mean jobs for the poor and riches for the rich. The heady mixture of patriotic blare and pushing greed has proved invincible since the time, two hundred years ago, when nationalism arose. Observing the United States in the last fifty years, I come to the conclusion that things are getting worse, not better: the country is becoming more bellicose.*

When William James searched for the moral equivalent of war, there was no nuclear bomb. Would he have been willing to accept the balance of terror in which we have been living as such an equivalent? After all, in the forty years that the bomb has been hanging over our heads, it has been used only by one country, and that at the very beginning, when that country possessed the monopoly. But I remember reading that toward the end of the Vietnam War the president was heard to exclaim on one occasion "We've got to nuke them, Henry." Similar occasions may occur again, and the Henry of the day may give different advice, burying the world in ashes from which no phoenix will ever arise.

Our world has been creaking on for so long that it would be foolish to predict its end on the day after tomorrow. What can, I believe, be predicted is that it will become an even grimmer world in which the individual will feel less and less at home. Also, that it will have to become a Spartan world in which, together with the

*I understand that recently T-shirts could be seen here with the charming slogan "Kill a Commie for Mommy." The Russian counterpart is hardly conceivable: "Kill a Cappie for Pappy."

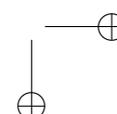
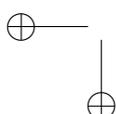


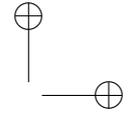
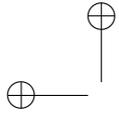


end of what used to be called civilization, the comforts of the past will sound like fairy tales. Revolutions are even less likely to occur than previously; if they do they will probably not be of the Robespierre-Lenin but rather of the Spartacus types. The cooperation of the United States and Soviet Russia in holding them down can be envisioned; the role of China is less clear.

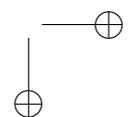
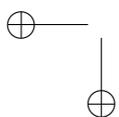
These forecasts, made with a great deal of diffidence, are based on the observation that the consciousness of the individual has been diminishing rapidly in the last fifty years or so. The publicity and manipulation machines of the state, of the advertising industry, of the mass media have combined to deprive the single person of his or her personality center, as it were. The nostalgia for a paradise on earth or in heaven, a powerful motive in the old days, has disappeared; the sinews of a living religion have been cut; the longing for a messianic redemption has been extinguished. The world seems to be populated by mindless zombies, shopping for bargains.

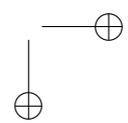
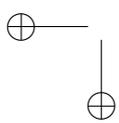
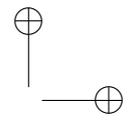
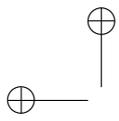
But even our impoverished earth is variegated enough for unseen miracles to happen every day. (They would be no miracles if we could see them.) Decay can be stopped; we can be made aware again of the mysterious and glorious singularity of each human being; the leap of awakening can become epidemic. That awakening, if it reaches a sufficient number of people, would be bound to induce a general feeling of horror at the way in which the nations are brainwashed and led to perdition. That their leaders are no less helpless does not extenuate the calamity. But if enough people are revolted at the attempt to shape our lives into a giant preparation for the terminal space war of mankind, this would amount

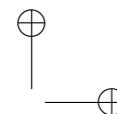
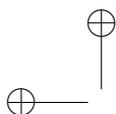




to the greatest uprising of history, the abolition of war.
This may be a baseless messianic hope; but in each of
us there rests Messiah, and only in us.







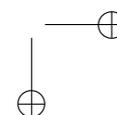
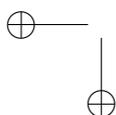
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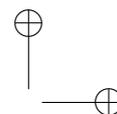
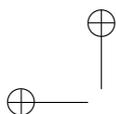
WASTE OF SHAME

Not long ago, I believe in February 1985, I read a news item that made me more ashamed than I remember ever having been before. And as I thought about it there came into my mind a passage from one of Shakespeare's most magnificent sonnets. Why it did so is easy to explain: the subconscious is not involved and we can dispense with the services of that great Soul Catcher of Vienna past whose office in Berggasse 19 I used to run every day when a schoolboy in that city. The poem, too, had to do with shame, and here is the beginning of Sonnet No. 129:

Th'expeuce of Spirit in a waste of shame
Is lust in action, and till action, lust
Is perjurd, murderous, blouddy, full of blame,
Savage, extreame, rude, cruell, not to trust. . .

Shakespeare, of course, does not deal with President Reagan who, like most of us, would have been unthinkable in Elizabethan times. There are many wastes of shame in the world, and in each can spirit be expended, in each can it be wasted. And never mind lust: we are both old, the president and I. The shame, however, remains, and I am sure there are many who have experienced it, but most of them remained silent as behooves a majority.

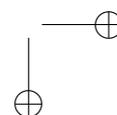
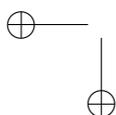


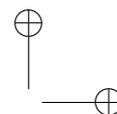
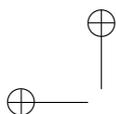


When I learned that President Reagan had called the “Contras,” those torturing and murdering counterrevolutionaries fighting the Sandinista regime in Nicaragua, with the partly overt, partly covert help of the United States – that he had called them “the moral equal of our Founding Fathers,” I expected an outcry of horror throughout the nation. Far from it: what came to my notice was a decent column by Mr. Wicker of *The New York Times* and a very good short article in *The New Yorker* of March 25, 1985, both expressing the requisite disgust. I was saddened, not surprised, by the lack of response: in this country, at this time, as soon as a caller arises, he makes a desert; the audience move away to play their video games or to read the instruction booklets that came with their personal computers. It had not been so before; even in 1928, when I first came to America, there were many voices and places in which to make them heard. Only after the Second World War did the torpor begin to grow, broken briefly in 1968 or so.

Many Americans are familiar with the history of their country, and I am sure, many of them are patriots in the best sense of the word: they love their homeland. The Fourth of July is a great holiday and the names of the Founding Fathers are remembered with deep respect. The Declaration of Independence and the Constitution are the most lasting monuments of the Enlightenment of the eighteenth century. Such names as Washington and Franklin, Madison and Jefferson are historical figures of purest brilliance that must not be soiled with lighthearted thoughtlessness.

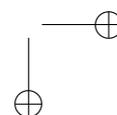
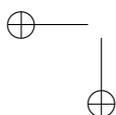
When I say that I do not pretend to the right of counting myself among the patriots whom I have mentioned,

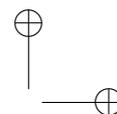
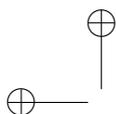




I ought to state my credentials or rather their lack. I have lived in the United States of America since 1928, with the exception of four years, and have been a citizen of the country since 1940. The bloody swamp of history has swallowed the Austro-Hungarian monarchy where I was born; and like millions of my contemporaries I have never had a homeland in the strict sense of the word. What I have had, instead, was an acquired tongue and a substitute habitat through whose crevices I could observe our sad world. Not given to instant jingoism, never having waved a flag of any color, I could not but wonder at the many recent arrivals I met who, regardless of whether they had just come from Damascus or Minsk, from Cologne or Tel Aviv, screamed "Our country!" and meant the United States. I am not certain that I consider that ease of assimilation as a good sign. The longer amalgamation takes, the harder it is to grow into a society, the more durable, I should think, that society will be. I, for my part, have remained what I have called myself in another connection: an outsider on the inside.

There are no doubt things that the quiet, dispassionate observer sees better than the actors in the rough-and-tumble of day-to-day life. Think of Alexis de Tocqueville and how much he could teach us, he, the reticent French aristocrat, about American democracy. A few things have changed in 150 years, however, and whether in Tocqueville's times President Jackson could have referred to, say, the Algerian pirates as the moral equals of Thomas Jefferson, I do not know. In many respects, though certainly not in outright criminality, customs may then have been rougher, but the motto "Talk first, think later" was

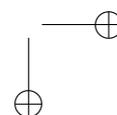
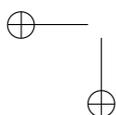


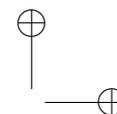
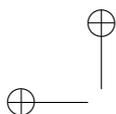


not yet invented. “To put one’s foot in” referred at that time to stirrups rather than to a bloody mess.

Nations that have existed for hundreds or even thousands of years have, by gradual and imperceptible accretions of memories, customs, and vocabularies, acquired a tradition that far outweighs any temporary political changes. Shaped by language, religion, historical consciousness, but also by traditions emanating from tribe, clan, or family, the amplitude within which the individual could assert his will was often narrower and more rigidly defined than the political and social customs of his country would seem to permit. I experience no difficulty in knowing what I mean when speaking of a Chinese, a Russian, a Frenchman, an Englishman, or a Dane. Thus, I dislike, for instance, the designation “the Soviets,” to connote the Russians; for me, the ability to read Pushkin or Tolstoi by way of a mysterious osmosis, rather than by parsing and spelling, defines a Russian, be his name Gromyko or Solzhenitzin. But what, I often asked myself, is an American?

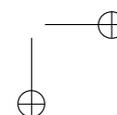
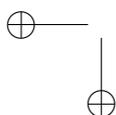
The cynical answer which I reject, would be: somebody carrying a U.S. passport and paying his or her taxes in dollars. Nor can I accept the pathetic answer: anybody willing to sacrifice his life for his country. In the convoluted history of the world some people have given their lives for mousetraps. I want a reasonable answer, not a chauvinistically heated one. An answer applying only to saints and heroes also will not do. One definition, applicable to almost all other nations, at least until the middle of our century, never quite fitted the American, namely, that a national was determined by the language he spoke and by the locality in which his family lived.

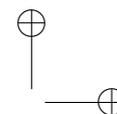
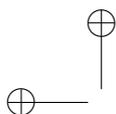




As to the second, Americans have always been a very mobile people, restless and rootless, with the exception, perhaps, of a few regions: New England and parts of the South and the Middle West. And as for language, I know that I shall meet with protest when I deny that there exists an American language; it is, in my opinion, a form of English not much more different from standard English than the language spoken and written in Austria is from standard German. It is this very absence of an autochthonous language that contributes to my predicament in trying to understand America. Eventually, a new language will probably develop, but there has not yet been enough time for it. Incidentally, poetry is the most sensitive seismometer for tectonic deformations, as it were, of language. It is probably significant that when the greatest talent in English poetry in our time, W. H. Auden, moved to America in 1939 his poetic power declined rapidly. (Or maybe he moved because he felt that he was declining.)

In any event, there still is another force that holds a nation together, and that is the commonly accepted mythos of its past. Whether this complex of beliefs is provable historically is of much less consequence than is the strength with which it is held. In the absence of other bonds, available to older countries, that mythical nexus is of extraordinary import to America. *Novus ordo seclorum*, the Great Seal of the United States proclaims. A new order of the ages is thus presented to the immigrant, the exile, the refugee, the fugitive on the first one dollar bill he earns or acquires otherwise. I do not want to exaggerate the actual impact, and most people coming here are more interested in higher denominations,

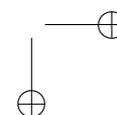
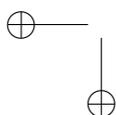


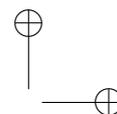
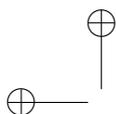


but a symbolic effect no doubt persists, rendered even more impressive by the scarcity of other traditions. The Founding Fathers represent, in fact, the most majestic part of American history.

How could an American president, sworn to uphold, etc., etc., so debase the noblest part of the history of his country? Did Washington, Adams, Jefferson, or Madison cut off the testicles of their prisoners, did they slit open their bellies so that the intestines hung out? What in Somoza's defrocked torture brigades reminded President Reagan of their moral equals, the founders of American independence? Does Mr. Reagan not read beforehand what he is given to verbalize? Or did this particular apophthegm spring out of his innermost self? Words are light, he knows that, but words are also heavy; words are blood dripping out of wounds, but words are also balm laid on sores; words resurrected Lazarus; but words sent millions to the ovens.

The first servant of a great nation ought to know how heavy words can be. There is no evidence that Mr. Reagan does understand it. He will come and tell us in his inimitable and (I am told) irresistible way, the voice that launched a hundred thousand lipsticks, what a crony had said to him about Mrs. Ferraro. Instead of vomiting, you are flattered and laugh, for it is nice to be taken into the intimacy of the great. You conclude that a man so full of amusing anecdotes cannot be all bad. But then you realize that nothing you hear and see nowadays is spontaneous: there are entire bureaus devoted to shining the images of the great, and there exists probably a special organization manufacturing jokes about Mrs. Ferraro. I assume, therefore, that when

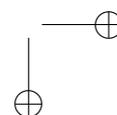
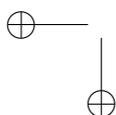


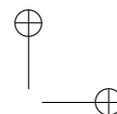
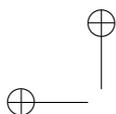


President Reagan called the “Contras” the moral equals of our Founding Fathers he knew what he was saying.

At that point my memories go back to a distant past, when I was a schoolboy in Vienna during the First World War and in the somber years that followed. We used to refer to America as the land of unlimited possibilities. A great many good things came from that vast and rambunctious country: motorcars, typewriters, fountain pens, but also the canned fruits of California. That was a time when American know-how was not yet a knew-how, when American goods could not yet be called American goods. Everything appeared possible on that enormous unfettered continent, and if we had been told that the American people had elected Clever Hans, the learned horse that could count to fifteen, as their next president, we should not have been astonished. When I finally came here, at the height of the campaign that elected Hoover, I discovered that there were limits and that one sometimes had to swallow more than one had bitten off. Hoover was an intelligent and probably decent man, but he was faced with a collapse for which he was not prepared and with which Clever Hans could perhaps have dealt more successfully. But then came Franklin Roosevelt, and he proved, in most respects, a very great statesman.

Since Roosevelt’s death and the dissolution of his remarkable cabinet, quality has been declining with frightening speed. The machine-made adoration may have increased, but there was always less and less substance. The advertising industry which has taken over the country may throw up ever more highly colored bubbles, but these are poisonous to the mind. I believe, I am immune, and when, for instance, in Kennedy’s times there were



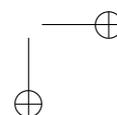
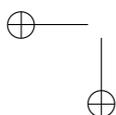


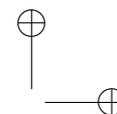
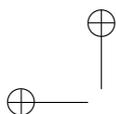
the silly noises about “Camelot” – we were all riding in shining armour in King Arthur’s cavalry – it occurred to me instantaneously that in French *camelote* means “trash.”

There is no assurance whatever that we have reached the nadir. There may not even be such a thing. The ostensible unchangingness of institutions may, however, conceal the progressive loss of their cores, just as the same military marches may delight kings, presidents, and dictators. In listening only to these melodies one can be badly mistaken about the state of a nation.

It is customary to blame the opinion industry, and principally television, for the evils that have befallen the country, and I do not wish to be the exception who refrains from doing so. But is it fair to hold the symptoms responsible for the disease? Before you can fall into a hole, someone must have dug it. Blame the digger, not the hole. Who then is guilty? Aside from the Devil, who is just about to change his advertising account and has no time for trivialities, nobody comes to mind, except you and me. But take heart: just as believed untruth becomes truth, unfelt guilt becomes innocence.

“O, by the way, George, Ben, and Tom, did you hear the latest, what happened when Jeane went down to Managua?”





X

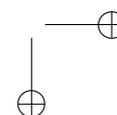
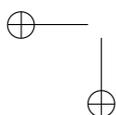
X

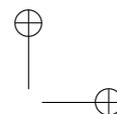
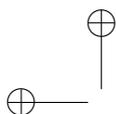
A great mass of excerpts, notes, and half-finished essays was left by Friedrich Nietzsche at the time of his collapse at the end of 1888. Many of these scraps were stitched together by Nietzsche's sister and her helpers to produce a truly illegitimate book under the spurious title *The Will to Power*. Reliable editions of the original texts have been made available only in the last few decades. A reader of the completely unorganized array cannot but be struck by the unexpected charm of incoherence; just as the *Pensées*, glorious in their multifarious relevance, would probably not have made so profound a book, had Pascal succeeded in finishing his *Apology*. There is such a thing as an eruptive, fragmentary thinker, and his products do not gain from being smoothed into a polished whole.

In one of those jottings from the 1880s Nietzsche draws up a list of the elements contributing to the nihilism of his time and writes:

The nihilistic consequences of present-day science (together with its attempt to abscond into the Hereafter). From its doings there results finally a self-decomposition, a turning against itself, an anti-scientism. Since Copernicus Man has been rolling from the center into X.*

*A similar, though less incisive remark can be found in one of the published works: "Since Copernicus Man seems to have fallen on an inclined plane – now he rolls ever faster away from the center



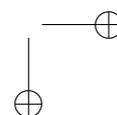
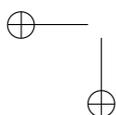


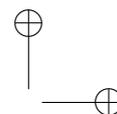
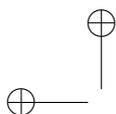
Since Nietzsche's time science has, I believe, written off the Great Beyond, and if mankind is on the spin it is science that provides the necessary force. X, that mysterious letter – a cross in the process of collapsing – stands, I take it, for the unknown. The center also is not specified, but I believe we shall not go wrong if we identify it with "the centre" of which W. B. Yeats writes in his celebrated poem *The Second Coming*: "Things fall apart; the centre cannot hold; / Mere anarchy is loosed upon the world..." The anarchy called forth by Yeats is reminiscent of Nietzsche's nihilism; and I wonder altogether whether that remark could not have been known to Yeats when he wrote the poem, since the English translation by Oscar Levy of the complete works had already been published by 1913.

Nietzsche's view of history was influenced, if not shaped, through his acquaintance with one of the profoundest historians of his time, Jacob Burckhardt. It was that member of the cool and frugal bourgeois aristocracy of Basle who befriended Nietzsche when he there became a university professor. The imperturbable historian and the much younger mercurial philosopher got on very well; it was to Burckhardt that Nietzsche addressed from Torino one of those tragically terminal letters in which his insanity became manifest.

Despite all the *gaya scienza* that he preached on occasion, Nietzsche was a tragic thinker and a severe and bitter critic of his time. Even when he was captivated by the various contemporary idols, such as Wagner and

– where to? into nothing?" (*On the Genealogy of Morals*, Third Treatise, No. 25)

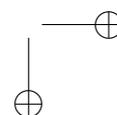
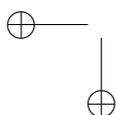


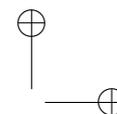
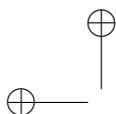


Darwin, that never lasted long. His followers and imitators, however, by aping him, very often made monkeys of themselves. In being a critic of his time Nietzsche has remained one of ours, for the seeds that have brought us so abundant a harvest had already started sprouting one hundred years ago. Perhaps Progress now shows us an even uglier face but already in Nietzsche's time it was not particularly pretty, and this Burckhardt could have taught him quite effectively.

In any event, what I consider revealing and relevant in the quotation given before is that Nietzsche holds natural science (he expressly uses the term *Naturwissenschaft*) responsible for the state of anarchy in which we live, or, as he would have put it, for the advance of nihilism. He dates the beginning of the decline with Copernicus, that is, with the demolition of a geocentric vision of the universe. I have some modest doubts. After having delved into my inner self I have come to the conclusion that it is all the same to me whether the sun turns around me or I around the sun. Scientific revolutions, unless they lead to technological upheavals, leave the common man pretty much untouched. It may be ascribed to a regrettable dullness on my part, but I would say that Henry Ford has done more to human life in our time, for or against, than Copernicus, and so have Otto Hahn or Gregory Pincus (the popularizer of "the pill").

Nevertheless, it was undoubtedly at the time when our natural sciences began to move in the direction they have since been following that man stepped out of nature, as it were, undertaking to shape an instrument that would permit him to unravel the giant clew of which he no longer felt to be a part. Although the mischief then

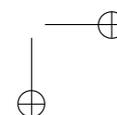
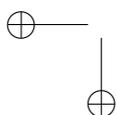


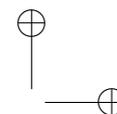
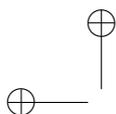


was by no means as great as it is now, Nietzsche seems to have been inordinately sensitive to the early signs of mental and moral dyspepsia caused by the growth of science.

I must confess that I am unable to lift the existness of that great X to which, according to Nietzsche, we are all being pulled or driven. I cannot name it, I cannot describe it; and yet, I feel it in my bones. It is an unre-remembering forlornness, a rootless despair, an utter loss of orientation. Were we able to contrast a medieval saint, say, Francis of Assisi, with one of the recent American presidents, say, Mr. Reagan, we could, I believe, discern X. It is, however, part of our predicament that we no longer have eyes for that contrast.

Were I forced to indicate, if ever so vaguely, the direction in which that mysterious X had to be looked for, I should say that one of its characteristics must be the complete disappearance of alternatives. Human destiny turned into a oneway street or rather into an unidirectional climb to ever greater heights. Heights of what? That often remained unspecified, nor was it hinted what mankind would find at the top. The propelling force was, however, clear: R & D, scientific research and its technical applications. Human progress could have been, and in the past was, envisioned in many forms, but finally it took only one shape: that of technical perfection. That that perfection is available to only very few is beside the point, as long as it can be depicted on screens for the



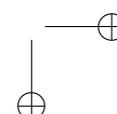
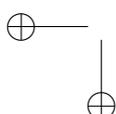


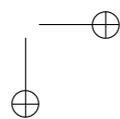
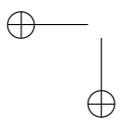
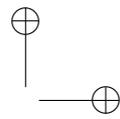
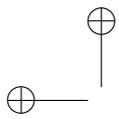
multitude. Mankind now sits before a box and watches pictures of progress.*

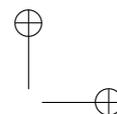
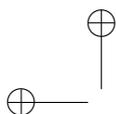
Much of what besets us Nietzsche could not have seen. Radioactivity was not yet discovered, and all its abominable progeny still rested in the womb of the future. The world was not yet rendered uninhabitable, its poisoning had barely begun. Wars were rare and short and seemed to be in the course of vanishing. Population growth was not yet the time bomb it has become. But what Nietzsche, that outstandingly seismographic man, could sense was an ever growing disorder, an increasing lack of reference points, a floundering from one half-truth to the next.

“Rolling from the center into X” – does that mean that mankind will never again find a center? Or can X, if we only knew what it is, become a new center? Thinking of the way in which inductive science operates, I should doubt it. It is inherent in the experimental way that it always corrects, and often invalidates, what it has found before. This is its principal means of advance. Those who search for certainty must abandon the ways of science. This is unlikely to happen for a long time and the restlessness and dissatisfaction, so strongly felt by Nietzsche, are bound to continue.

*This is, in fact, in my opinion the main function of the mass media: the replacement of reality by its easily multiplied image.





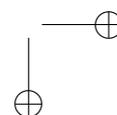
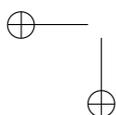


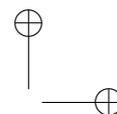
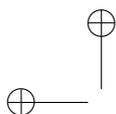
Y

YOUNG AND OLD

The youngest human being whom I can imagine is the eight-cell embryo, the oldest whom I believe I know fairly well is myself. Between these two poles there are, of course, innumerable people with whom I am or was acquainted, vigorous or feeble, bright or dull, profound or superficial, sincere or hypocritical, handsome or ugly; but usually an inextricable tangle of everything together. “Neither angel nor beast,” as Pascal said of man. And even beyond the pole occupied by me so unrobustly, I see people who are much older. You cannot help seeing them in New York; they stand out by almost falling down: targets of rudeness on the part of strapping humanity, bringing out the worst in even the least professional of muggers. We used to call them “muggees.” As mild a treatment as pushing them down the subway stairs is enough to extinguish their lives.

When the chorus in *Antigone* exclaims “There is much that is awe-inspiring, but nothing more awe-inspiring than man,” a vision of human existence, of human dignity, reveals itself that most of us have forgotten that it once existed. It is true, there were few of them then, each one set off brightly against the mysterious background of the darkness of human destiny. To me they appear incredibly big, although to Sophocles they may have only seemed pawns in a gigantic chess game played by the gods. In

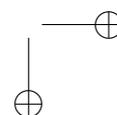
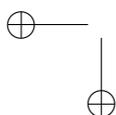


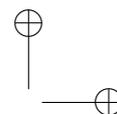
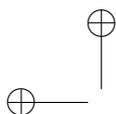


any event, the steepness of the decline from the ancient idea of man to us, those measly social security numbers, can hardly be measured. Stripped of our singularity we are being moved and managed as blocks, labeled for purposes of consumer research, gallupped in the course of a public opinion ploy which deceives even the deceivers. The world seems to consist of customers and of those who must be persuaded to become so. That our species once produced a Bach or a Mozart, a Shakespeare or a Michelangelo is no longer believable.

Since we live in times made of brightly colored cardboard, everybody, young and old, is reduced to playing one-dimensional roles in a serial written and acted by anthropoids for anthropoids. The replacement of reality by a much more real-looking make-believe has been going on for a long time, but only since the advent of audiovisual anesthesia has it become viciously virulent. Now, even the household pets and the oleander bushes assume the roles assigned to them.

It is, therefore, not astonishing that in a world inhabited by stereotypes produced by computer simulation, the ages of man have also begun to look phony: parts in a musical that did not make it beyond New Haven. Let me start with the apogee of human life, with senility. Whenever I feel downcast (twenty-six synonyms, ending with *spiritless*, *sunk*, and *woebegone*) I consult *Webster's Collegiate Thesaurus*, for the collision between a word professor and a word processor is always amusing. There I find a definition, an illustration, and a list of synonyms: "*senile*, exhibiting the weakness and loss of mental faculties often associated with old age." The synonyms are meager and hardly usable: "doddering, doddery, doted,



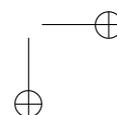
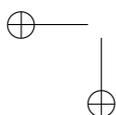


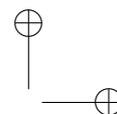
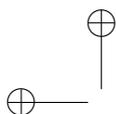
dotting.” The usage is illustrated as follows: “a senile professor now unable to lecture coherently.” This, I must say, struck home. The senile professor, who in his greener time had known many youthful and vigorous assistant professors entirely unable to deliver a coherent lecture, could do nothing but slink away in shame.

Actually, I feel no shame at all. The inability to remember the name of Dr. Alois Alzheimer is presumably the principal symptom of the disease carrying his name; and, as you can see, I have not forgotten that memorable physician. And as for the politicians who have it in for the gaffers, they probably mean the one in the White House and not me. It is the human condition that you either die young or grow old. Even the loss of some physical and mental faculties is no reason at all to feel ashamed. The voice of nature telling you that it is time to return to the ashes from which you came is a venerable voice. That our time has made us deaf to it, as to all voices of reason and reverence, exhorting us instead to play Bingo, speaks against our time.

That old people now are being invited to feel ashamed of having grown old is one of the many signs of the progressive dehumanization of our world, of a loss of reality, that would have astonished the people of the misnamed Dark Ages. As a matter of fact, I believe ours is a particularly dark age. Even the mushroom splendor of an atomic cloud will not illuminate it.

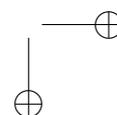
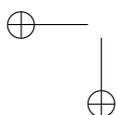
“If youth only knew, if old age only could.” Well, nothing would happen if they did, because now they all lead vicarious lives, typecast as in a bad musical. The legendary wisdom of old age – patriarchs with flowing white beards, eagerly listened to by crowds of young

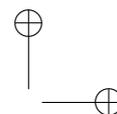
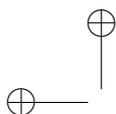




people (now equipped with tape recorders) – looks good only in a grade B movie. No one listens to anybody, except if he is paid as an extra. Very seldom, a word or a phrase, or even a deed, floats from nowhere, and it proves infective, going directly to a single heart. This is now, I believe, a very rare event; it must have happened more frequently in previous times and in societies that were not in so permanent a state of embalmment as all societies have appeared to me in my lifetime. The rigidity of sentiment, the ossification of feeling, that frightful emptiness: all that may have started in America, but it has not remained exclusive to it; it has spread over the world. In 1925, one of the greatest letter writers of this century, the poet Rainer Maria Rilke, lamented in one of his letters, the sweep of “the vacuity of America” throughout the world. He failed to realize that what he was experiencing was not a spasm of an American disease, but a tremor brought about by the advance of the age of giant technology that would eventually replace man by the machine.

There are certain things that one can take only from oneself, either because one has not been told by others or, more probably, because one has not listened when spoken to. For instance, a secret, often revealed but without avail, is that people do not change. Their actual or their mental teeth may have fallen out so that they can bite no longer, but, in general, once a bastard always a bastard; and perhaps also, though I lack the experience, once a saint always a saint. On the character core, laid down in early youth or possibly even before, innumerable accretions are deposited during life, but much as they may change in shape and dimensions,

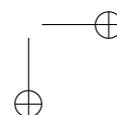
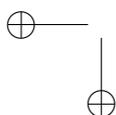


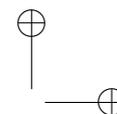
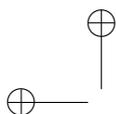


the essence remains, the core is intact. I must make allowance for the very rare exceptions in which such concepts as redemption, mercy, salvation are not merely tokens of a hollow phraseology which one gets rid of on entering early businesshood. When Saulus became Paulus, more than his name changed. A lightning out of deepest darkness, a leap into the impenetrable, occur perhaps more often than I realize, for those people are not given to talking about their adventures. But after these exceptions are granted, old people remain the children they once were, perhaps less appetizing to behold and slightly more experienced.

In turning now to the other extreme, the young, I must be careful, for I am told that their contributions pay my social security benefits. That I myself also had paid into the same ever expanding black hole, and in better dollars than I get back, is, of course, forgotten. In no country known to me are legally founded benefits handed out with so much peevishness and contempt as in America. In any event, without the slightest desire to bite the hand that feeds me scraps I must confess that I look at youth with great pity. They are condemned to live in a much worse society than had been my lot.

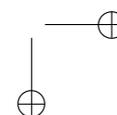
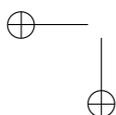
Standing on the far side of the well-known generation gap, I make out innumerable tiny figures running from left to right and then back again. It is often not clear whether they do anything else, but that must be so for their older peers all voted, I am told, for the president of the well-to-do and hence were, presumably, themselves also prosperous. Those I am thinking about, the eighteen- or twenty-year-olds, are, however, not yet in the dollar chain; they are busy loafing, or so it looks to me; loafing

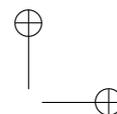
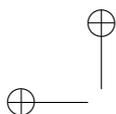




on the streets, in the subway, in colleges. One error I can avoid committing is to compare my own youth with theirs. I spent my youth in Vienna in the 1920s under conditions so vastly different from the present as to make comparison senseless. Much rather did the generation around 1968, when a great and short-lived upheaval seemed to get ready to shatter the social cohesion and the somnolent, complacent consumerism of the Western countries, resemble the years of my youth. But even there the differences are much greater than the similarities.

What that generation and mine had in common and what is now lacking completely, was the existence of models, of living ideals to whom one could look up; lodestars, as it were, that would steady confused young beings in their uncertain aspirations. To name them calls forth a period aroma that has evaporated long ago: in my time, the names may have been Schweitzer or Gandhi or Einstein, Lenin or Trotsky; and in 1968 Mao or Guevara. Whether the youthful adoration was justified is of no importance, but the existence of not entirely ludicrous ideals is. It may sound starry-eyed, even romantic, when I say that what is being spread out now before young people can only corrupt their longings, distort their innermost directions, render them cynical before they can think. The grim world of corporate aggressiveness exalts achievements and success, but the judges who decide and award can themselves not conceal the grin of double-tongued complicity. A young person being initiated by such treacherous guides into a world of lies and hypocrisy must in all sincerity conclude that life is a confidence game. And indeed, if many believe that to be the case, life does turn into a confidence game.

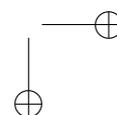
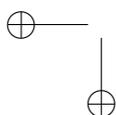


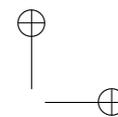
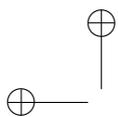


Who are those judges, who are those guides? Well, I am sorry to say, they are what is called our society or the system in which we live: the opinion industry, broadcasting stations, newspapers, magazines; the managers of public relations; the politicians; the schools and universities; the physicians and scientists; the writers and artists; the churches and sects; the bankers and industrialists – in other words, the entire kitchen midden of a world that wants to move fast but does not know where.

Is it a wonder that we read ever more often of children who commit suicide? And even more frequently of those who founder into drugs? Oppressed by a screaming and money-drunk society which pretends to expect so much more of them than they know they can supply, they must break under the weight. Later, they would, however, have perceived that the weight, too, was only a make-believe.

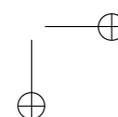
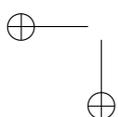
In earlier days, when I was still what they call teaching at a university, I was sometimes asked questions that showed me the depth of misery over which the seemingly carefree, youthful mind was suspended. Not being a licensed guru I refrained from advice but, occasionally, out of the not very bulky fullness of my own experience, I could say a few words. They were neither many nor profound: 1) You are not a cork bobbing upon the waters; you are not the plaything of evil powers. 2) If you are the product of evolution, then whoever made evolution, made you. 3) You are yourself, better more than less; and if you grow old, you would not want to have to spit at your own image in the mirror. 4) You cannot start too early to build a capsule of quiet, silence, solitude,

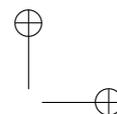
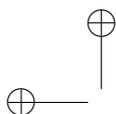




around yourself. Only in that soundproof space can you hear the voice of nature, can you think the thoughts of your heart. 5) Whatever talks at you in the voice of the world is evil; no persuader means well. 6) If you find that there is only one thing you can do, then force yourself to do two. 7) Be not a 100 percent anything; don't mix life and business; earn your bread during the day and be free, free, free afterward.

The Voice of Wisdom went on and on, but always the message was: DISCONNECT! (Incidentally, the opposite of E. M. Forster's advice in *Howards End*.) For I am convinced that only a temporary secession, on the part of very many, from the kind of humanity that fills our century can save this world.

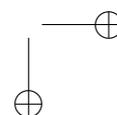
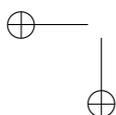


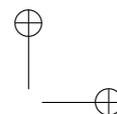
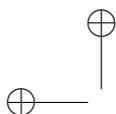


Z

ZAUBERFLÖTE

Who does not know that wonderful Mozart opera which has kept people enchanted for nearly two hundred years? I heard it first on June 18, 1918 in the Vienna Volksoper. You remember, at the very beginning the ladies of the Queen of the Night hand Prince Tamino the magic flute by means of which, later in the opera, he is shown to tame and make sociable a whole bunch of wild animals. At the same time Tamino's traveling companion, Papageno, the birdman, is given a set of wondrous chimes which he uses for insurgent control when he is attacked by the villainous Monostatos at the head of Sarastro's slaves. The silvery tinkle of the tiny bells pacifies and immobilizes the bad guys. Many a police commissioner may have dreamed how nice it would be if his department were issued so magic a glockenspiel. What remains puzzling is what slaves and slave drivers are doing in the "sacred halls" of wise and benevolent Sarastro. Maybe the librettist, Schikaneder, would have had an answer, but I do not believe anybody asked him. Plenty of domestic help was taken for granted in that enlightened eighteenth century, and I am sure there must have been slaveholders among the Freemasons. Manifestoes on the "Rights of Man" lend themselves to much high-blown rhetoric, but the concepts behind them, those of "rights" and of "man,"





are a sort of oratorical silly putty, subject to many period-bound modifications.

In any event, when, in the opera, Papageno who is about to carry off Princess Pamina is assailed by Monostatos and his gang, he sings as follows:

Wer viel wagt, gewinnt oft viel!
Komm, du schönes Glockenspiel,
Lass die Glöckchen klingen, klingen,
Dass die Ohren ihnen singen.

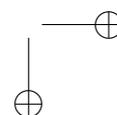
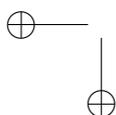
(Papageno plays on the bells. At once Monostatos and the slaves begin to dance and sing.) This is what they sing:

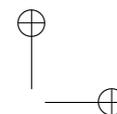
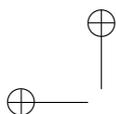
Das klinget so herrlich,
Das klinget so schön!
Larala la la larala!
Nie hab ich so etwas gehört und gesehn!
Larala la la larala!

(They dance away.) That is, of course, not the end of them, but for the moment the chimes have worked.*

This story is not being told in order to call up delightful operatic memories, but for an entirely different purpose. It occurred to me that there is evidence that some years ago a high official of the Central Intelligence Agency, watching the *Magic Flute*, must have had a brainstorm (frequently the only proof that a brain is

**Papageno*: Who dares much, much shall gain! / Come, my lovely chime of bells! / Ring ye little bells again. / Let all ears now hear your knells. *Monostatos, Slaves*: Merrily singing, / Play us some more! / Larala la la larala! / Such as we never did hear before! / Larala la la larala!





involved). As he followed Papageno's lovable exploits he asked himself, "Could we not have similar chemical bells, pharmacological chimes, a whole neurophysiological carillon? You spray the Politburo and listen and watch how they dance away, singing. The rest of the scenario is easy." Whether this is the same official who, a few years earlier, devised the secret depilatory for Castro's beard or the exploding Havana cigars, I do not know.

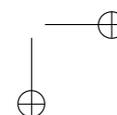
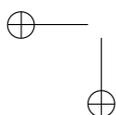
Here a few quotations from an article by R. Jeffrey Smith which under the title "Court Gives CIA Broad Secrecy Rights" appeared in the scientific weekly *Science* of May 3, 1985 (p. 566).

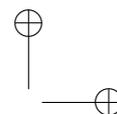
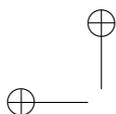
In a decision that could facilitate closer ties between academic scientists and the intelligence community, the Supreme Court decided on 16 April that the Central Intelligence Agency (CIA) may keep secret the names and institutional affiliations of virtually all of its intelligence sources. As a result, academic scientists can perform research for the agency without fear that their work will ever become public knowledge.

... (The decision) ... allows the agency to withhold the names of nearly 200 scientists who participated in the 1950's and early 1960's in a project known as MKULTRA, one of the CIA's most bizarre research endeavors.

Known only to a handful of federal officials, the MKULTRA program was supposed to discover "chemical, biological, and radiological materials capable of employment in clandestine operations to control human behavior," as the CIA explained in internal documents. "For example, we intend to investigate the development of a chemical material which causes a reversible nontoxic aberrant mental state, the specific nature of which can be reasonably well predicted for each individual.* This

*In other words, whether Monostatos will be dancing a galliard or a courante.



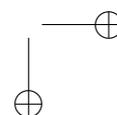
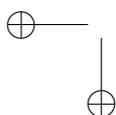


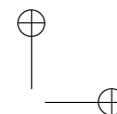
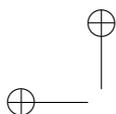
material could potentially aid in discrediting individuals,* eliciting information, implanting suggestion and other forms of mental control." The avowed purpose was to gain "a thorough knowledge of the enemy's theoretical potential, thus enabling us to defend ourselves against a foe who might not be as restrained in the use of these techniques as we are."

Whether Mary still has a little lamb is not clear, but if she does its name should be CIA. Nevertheless, Mr. Smith goes on to report that the program "was less than a sterling success," although "several persons died as a result of unwitting exposure to experimental mind-altering drugs, and others were apparently injured." Among the twenty-eight universities mentioned as taking part in 109 projects between 1953 and 1966 I was not surprised to find my own Alma ex-Stepmother, Columbia University. I have no idea who at Columbia could have participated, but if my suspicion is correct, *requiescat in pace*.

The story is instructive in many ways. One could, for instance, renew one's conviction with how little wisdom we are governed, but that was old hat even in the times of Count Oxenstierna. One could derive from that story the entire misery of American universities, never sure of their legitimacy, grabbing here an overhead and there a donation, furtive-triumphant receivers half of spiritual and half of illicit goods. One could also deduce from it the kind of molecular ethics which now governs our scientists; in which connection one may safely predict that the CIA can engage in, and keep secret, only scientific failures. Had there been a success, it would have been published

*Think of Mr. Gorbachev being made to intone the Star-Spangled Banner on Russian television.





promptly, if not by the discoverer, then by his best friend. Somebody always is in need of tenure or of a prize.

The story may also remind us of how scientific research is performed in our time. Scientists have developed an exquisite instinct for receiving money for one purpose and using it for another. I am convinced that most of the funds wasted by the CIA were employed for more legitimate research objectives than to make the Politburo cut an unbecoming caper. We are not being told how much money was spent on the entire undertaking, but let us assume 109 projects, each costing \$300,000 (three yearly grants of \$100,000 each), and we get about \$33 million. Quite a few ultracentrifuges, nuclear magnetic resonance machines, gas chromatographs, and other pieces of equipment can be bought for that, together with numerous postdoctorate salaries and so on. Since the total expenditure was presumably much higher, there may also something have been left for the direct lubrication of the leading brains involved in the noble task.

While composing this little divertimento a somber suspicion arose in me. Could it be, I asked myself, that the Other Side, the Dark Side, the Evil Side, the infernal counterpart to our good-hearted CIA, had done similar philanthropic research work, but with greater success? Some remarks, made occasionally by our leading statesmen, and even by our Most Leading Statesman, are of the kind that could best be ascribed to the ingestion of mind-altering drugs. How were they administered, through the air, intestinally, parenterally, or by telepathology? Would that not be a problem worth the efforts of fifty-six universities?

