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THE OMINOUS CLOUD

POETS and dreamers have long protested the physical ugliness of industrial civilization—the shriek and clatter of its sounds, the mutilation of the landscape by earth-gutting mines and belching foundries. More recently, the warnings of psychologists and neuropsychiatrists have been added. The industrial process, psychologists tell us, produces subdivided men—men whose natural ingenuity is stultified by the monotony of a single factory operation, performed over and over again. The psychiatrists generalize about the frenzied "pace" of modern civilization. Soil experts say that industrialized farming methods rob the soil of its fertility, and the new school of organic gardening insists that chemical fertilizers tend to destroy elements in the soil which are necessary to the production of nourishing foods.

The impact of industrialization on social relationships has intensified the complex problem of racial conflict—producing the Chicago race riots of the 1920's and the Detroit riots of the second world war. Modern methods of warfare are an aspect of industrialization, and the movement of armies means the movement of population to munition-producing areas at home. When less thought is given to the housing of a human family than to the housing of a roller-bearing, the technical problems of industry give way to social problems.

Now, in these days of bewilderment, new problems arise. New York, the richest and most powerful city in the world, has so little water that its inhabitants must adjust to "bathless days." The water shortage is, no doubt, a temporary emergency, but it represents the sort of unanticipated complication which may overtake a society which accepts for its "home" the concentration of layers created by technology.

In Los Angeles, an ominous cloud of fumes, dust, and noxious gases hangs low upon the horizon—the product of unusual climatic conditions and the immeasurable waste products of modern industry.

There is a basic unpleasantness in having to admit to ourselves that the disposal of wastes—the wastes we make ourselves, in various ways—is getting beyond our capacity. Here, on the Pacific Coast, we have ruined many of our beaches by pouring human wastes into the sea. The provision of mere custodial care to the people that our culture has wasted—has used and thrown away—is an ever-increasing problem. And the outskirts of every great city are quickly identified by piles of metal refuse—junk-heaps of obsolete machinery of every sort.

But while we have managed to ignore these wastes or isolate them from our lives, there is no escape from smog. Either you live in it, breathe it, endure its external and internal pollutions, or move many miles away from where it occurs.

Smog is a dirty, gray-green mist containing, according to analysis, "more than forty contaminants regularly or periodically in the air, and at least seven others which have been found occasionally." The contaminants which, in combination, are probably responsible for the eye-irritation so frequently experienced on smoggy days include sulfur dioxide, sulfur trioxide, formaldehyde, ammonia, ozone, carbon particles, and oil. These materials are found in the atmosphere together with products of natural origin such as salt brought by ocean breezes, pollen, fibers and silicates.

According to Louis C. McCabe, formerly director of the Los Angeles County Air Pollution Control, the bulk of the sulfur compounds is released into the atmosphere by oil refineries,

chemical plants and the burning of fuel oil by other industries. It has been estimated that a total of 822 tons of sulfur dioxide enters the Los Angeles atmosphere each day. Of this total, some twenty-two tons are attributed to gasoline burned in automobiles, and twelve tons to the burning of Diesel oil.

Raymond Tucker, St. Louis expert brought to Los Angeles by the Los Angeles *Times*, remarked in his report (*Times*, Jan. 19, 1947) that one industrial executive admitted the discharge of fifty tons of sulfur dioxide from his plant every twenty-four hours. This volume of the contaminant, the expert pointed out, is twenty-five times as much sulfur dioxide as that discharged by all the automobiles in sixteen hours on a much-travelled highway, either entering or leaving the city. Mr. Tucker also called attention to the fact that while the use of private automobiles was considerably diminished during the war, it was in these years that the smog became acute. These motor vehicles, therefore, while important contributors, are not the major cause of the contamination.

Another industrial source of contamination is the foundries and large steel plants which produce metallic oxide fumes. Some 300 plants of this sort emit fumes in excess of 100 tons a day. Other commercial sources include the process of manufacturing roofing materials, paint-spraying operations, and the preparation of asphalt paving materials. Besides the commercial incinerators, there are some three hundred thousand fires burning daily in the Los Angeles area, either in backyard incinerators or in open fires set to consume household rubbish.

A review of the scientific studies of the smog problem makes it evident that while there are literally thousands of sources of contamination, the release of industrial wastes into the atmosphere is the principal cause of smog. The wartime expansion of industry in the Los Angeles area was enormous, and a large part of this increase was concentrated during the years of 1942-43. Weather Bureau Reports show that visibility in this region reached a maximum in 1939, followed by a rapid decline to a minimum in 1942. Seriously oppressive atmospheric conditions were reported to the Los Angeles City Health authorities in 1942, it being observed that industrial plants were operating longer hours, causing the quantity of smoke to be greater. Industrial hygienists then announced the presence in the air of the irritants which have subsequently been identified as characteristic of smog.

The problem of smog, in other words, became acute during the past seven or eight years.

The haze which reduces visibility, however, is not entirely new. At the time of the discovery of San Pedro harbor, many years ago, explorers named the valley where Los Angeles is now situated "The Valley of Smokes." This natural haze, well-known to old-time residents, is believed to result from materials such as dust, pollen, fibers, salt, and other particles of plant, animal, earth and oceanic origin. The mixture of industrial contaminants with this natural "tropical haze" produces the heavy, murky mist which drastically reduces visibility in the Los Angeles area. It should be added that gases, of themselves, make no mist. Water droplets and solid particles—from 30 million to 600 million per cubic foot—are responsible for the haze. Most of these particles are less than a micron (1/25,000 of an inch) in size, although their range is from 0.2 to 10 microns.

There seems to be general agreement among technical authorities that the early morning mist which forms over Los Angeles is often due in part to the oxidation of sulfur dioxide and sulfur trioxide (contaminants already in the air) in sunlight to form sulfuric acid. This effect of sunlight on these gases is apparently well known. As the Stanford Research Institute Report on smog points out, "In Los Angeles, smog is never associated with fog in the usual sense." The production of this morning mist, now attributed to sulfuric acid formation, occurs on days when the humidity is too low for natural fog. Apparently,

the mist results from the action of sunlight upon sulfur compounds in the air, the extremely low visibility setting in about two or three hours after sunrise. It is to be noted, also, that eye irritation resulting from smog occurs when the relative humidity is as little as 25 to 30 per cent, and is rarely noted on humid or rainy days or during the hours of darkness. According to the Stanford report:

> In downtown Los Angeles it [eye irritation] takes place chiefly between the hours of 9 A.M. and 12 noon, although it may occur earlier in the day at locations nearer the coast and later in the day at locations inland toward the mountains. The sun is frequently bright, the sky cloudless (although a haze is usually present), and the wind velocity may be between three and five miles per hour.

The Los Angeles region seldom has high winds, the average velocity being a little over six miles per hour. In addition, the Los Angeles basin is bounded on three sides by high mountains and by the Pacific Ocean on the fourth. These conditions, obviously, help to create a sluggish atmosphere. Another decisive factor in the perpetuation of air pollution is a layer of warm air which lies above the area during a large part of the year. This stratum, called an "inversion layer," acts as a stabilizing canopy over the Los Angeles atmosphere, preventing the escape of gases and other contaminating substances. The usual elevation of the layer of warm air fixes its base at from 1,000 to 1,500 feet above sea level. (Meteorologically speaking, this phenomenon of inverted temperature is caused by the presence of a high-pressure area over the North Pacific.)

The various contaminants emitted by factories and other sources rise until they are trapped at the base of the inversion layer. They then become subject to the prevailing winds—sea breezes during the day, which move the mass of contaminated air toward the mountains, and off-shore winds at night, which move the air back again. Day after day, the smog-laden atmosphere may shuttle back and forth over Los Angeles, moving a little further northward and eastward toward the mountains each day because of the stronger daytime winds. Gradually, the smog seeps out into the mountain canyons and away; but meanwhile, more has been forming.

On sunny days, solar radiation warms the earth. This heat creates vertical currents, like those seen over a stove, which rise in turbulent activity, eventually reaching the layer of smog-producing contaminants held at the base of the inverted temperature layer. These currents swirl around and carry the contaminated air down to street level. The mixing process is then aided by morning breezes from the sea, and unless these landward winds are strong enough to carry off the contaminants, the streets of Los Angeles remain filled with smog.

The climatic factors in smog production are now regarded as generally understood. *The Smog Problem in Los Angeles County,* issued in 1949 by the Stanford Research Institute, gives a thorough account of the scientific investigation of the problem thus far.

While "official" releases and published reports on the smog problem speak of "eye-irritation" and "reduced visibility," these documents seldom refer to possible damage to the respiratory system. It is difficult to believe that the population of this region has not become much more vulnerable to weakening colds, coughs and other afflictions of the- throat and lungs as a result of the smog. In this connection, it is natural to recall the disaster which overtook the inhabitants of Donora, Pennsylvania, early on the morning of October 30, 1948, when twenty persons died and close to 70 per cent of the people over fifty years of age were seriously affected by the poisonous fog which blanketed this small industrial community. Donora, a city of only 13,500 population, has several plants which emit deleterious fumes. Clarence A. Mills' description of the tragedy (in *Hygeia* for October, 1949) sums up what is known of its causes:

> No one can say for certain just what killing agent or agents lurked in the fatal smog of October

30. It may well have been an excessive concentration of the sulfur oxides or sulfuric acid formed from them by the catalyzing action of the sunlight as it fell on the upper smog layers through the preceding days of clear weather. Fluorine has been suggested as the toxic agent, just as it was in the similar Belgian disaster of 1930—but without good evidence in either case. The Belgian situation was analogous to that of Donora in many ways. Both disasters occurred in proximity to large zinc smelters located in narrow river valleys. In both cases several windless days of cool, clear autumn weather had held the valley population under constant smog blanket day and night. Smelter gases and all flue products were caught in the blanketing fog and reached higher concentrations with each passing hour. Bright daytime sunlight fell on the smog from above, perhaps catalyzing the change of sulfur dioxide to the more toxic trioxide and finally to the deadly sulfuric acid. This was the final verdict of the official investigation in Belgium. But consideration of the Donora situation must also include the red oxides of nitrogen escaping from the acid plant.

Perhaps conclusions of this sort are given only occasional publicity in the Los Angeles area to avoid the creation of "hysteria," and to safeguard real estate values. Already, a quiet exodus of the wealthy is taking place, as the banks in the more prosperous suburban areas know full well. Independent surveys conducted by small communities and by private groups have reported severe damage to health in a number of instances. Practitioners of the healing arts, medical men, osteopaths, and chiropractors, are gathering facts from their patients and compiling statistics on the effects of smog.

It is also said that smog is seriously affecting the produce of the truck gardens in the Los Angeles basin—and that the citrus fruit grown here is becoming smaller in size, due, perhaps, to reduced sunlight as well as to other factors.

Gradually, the public is becoming aroused. In Pasadena, near Los Angeles, the Pure Air Council of California has been formed to coordinate the efforts of private citizens in reducing the smog menace. One of the Council's objectives is the establishment of numerous "smog complaint" stations throughout the county. Complaints by citizens will be turned over to the local Air Pollution Control Officer who is charged with enforcing the State legislation passed more than two years ago to help abate the smog nuisance. It is even possible that the Federal Government may take an interest in smog control. Two Congressmen are considering the introduction of a bill to place air contamination under federal jurisdiction, on the ground that low visibility may seriously interfere with aviation and even harbor navigation.

One student of the problem has pointed out that during and since the war, Los Angeles County has grown more than a million in population, and that people are now coming into the area at the rate of from 20 to 30 thousand a month. Under these conditions, the smog will undoubtedly get worse if the most energetic steps of control are not taken. While many industries have already installed devices to eliminate the emission of waste products into the air, the day-to-day experience of local inhabitants is enough to prove that the solution of the problem has barely begun.

But even if, in time, the major sources of contamination are brought under effective regulation, there will still remain the basic questions posed by the multiple effects of an expanding industrial civilization. Why are our lives marred, diminished and even punctuated by so many impersonal disorders? No sooner is approximate success achieved in the control of one kind of pollution, than another breaks out in an unsuspected quarter.

Conventionally, the solutions are sought from technology. Experts are invited to make studies and to write reports. Committees are formed to secure legislation and public cooperation and support. Much of our lives is taken up with adjusting to effects produced by what we do the rest of the time.

The unconventional attack on such problems has to do with basic attitudes. What is wrong with our conception of Nature, of natural

resources and the use we make of them? Is it possible that the poets and dreamers are right? That our instinct for "progress" is a twisted one? That our ideas of "productivity," of "wealth," and "the good life" are out of key with the laws of nature?

In the fourteenth century, when the Black Death swept away a quarter of Europe's population, the wisest men of the time decided that the earth itself was sick—sick of mankind and its crimes—and that the plague was a natural purge to cleanse the planet. We are a long way from such "mysticism," today, but it may contain elements of truth which we shall ignore at our peril.

Letter from **South Africa**

JOHANNESBURG.—To the average South African, it often appears that white people who do not live in close proximity with the black races sentimentalise about the latter. Criticisms from overseas tend to harden South African adherence to the colour bar until sentiment gives place to informed and dispassionate appraisal. It follows, therefore, that books and articles which fail to take cognizance of the different aspects of the complex problems involved do harm in South Africa proportionately as they raise indignation elsewhere.

Such, unfortunately, has been the case in respect to *African Journey* by Mrs. Paul Robeson. It is natural that anyone of Negro origin should arrive on a visit to the Union with an emotional antagonism, and that such a visitor as Mrs. Robeson should be obliged to accept the indignities imposed by the colour bar is, of course, deplorable. It also, most regrettably, limited her contacts while she was in this country. To say this is not necessarily to deny the truth of her statements, but rather to indicate another side of the picture. This other side can only be suggested here by one or two instances.

On page 52 of *African Journey,* Mrs. Robeson writes: "On the roads we saw many Africans trudging in search of new work, trying to escape the intolerable conditions on the European farms." There are, alas, farms on which the conditions would appear to most of us to be intolerable. Whether the conditions would appear in quite the same light to the workers who endure them is less certain. It seems no injustice to say that a vast number of Africans are naturally indolent. It is the minority that show ambition, application and industry. According to their nomadic tradition, such work as was essential to supply the bare necessities of life belonged mainly to the women and children. Formerly, not even the land needed husbanding, for the tribe could always move on to fresh pastures. The terrible land impoverishment of South Africa arose as the lands available to the Bantu became more and more restricted by white settlement. The white man, incidentally, felt that he was developing land of which the African was making no use, and this might be remembered in assessing the different claims to historic land "rights" by both black and white. It should be remembered, further, that neither Bantu nor European can claim more than two to three hundred years of occupancy "rights," for both invaded the country from opposite ends at roughly the same time. Prior to these invasions, the country belonged to the Hottentots and the Bushmen, both races which are now extinct.

Returning to the situation of the rural African on European farms, it must be said that he is often not only lazy, but also mentally backward. The brighter Africans have tended to migrate permanently to the more urban districts. It is therefore unfair to imply that the Africans trudging the roads are doing so on account simply of the "intolerable conditions" of the farms, even if it were true that the majority of European farms offered such conditions—a statement which few people are in a position to verify and Mrs. Robeson less than most. The common tendency to take six months' or a year's holiday as soon as a few pounds have been saved is one of the factors which make it difficult to raise the standard of living of the Africans. All too often, a rise in wages is spent on extra liquor or on long holidays.

Improvements in social conditions are sometimes accomplished in spite of the Africans themselves. An English farmer recently decided to improve the diet of his farm workers by supplying them with free maas (sour milk). But the practice had to be stopped as the maas was being exchanged for liquor, and the workers were turning up on Monday mornings in varying degrees of intoxication. The same farmer tried providing his workers with houses of adequate cubic space, hygienic concrete floors and proper windows. But the workers competed with great

enthusiasm to be allowed to live in the one tumbled-down, dark, insanitary mud hut on the farm! It is not impossible that the hovels for African workers on the farms of which Mrs. Robeson complained may sometimes have been the preference of the workers who occupied them.

Perhaps these few points will suggest the idleness of presuming that the Africans in the Union are in the main ready for absorption into civilization as responsible adults. Except for a possible small minority, they are not. The vast majority need to be cared for and treated as children, and it is in her trusteeship of these children, and her disinclination to provide for their eventual maturity that the Union is most open to criticism. At the present time, only the few are ready to benefit materially from the abolition of the colour bar. The white man's bogey of black domination is a bogey not of today, but of tomorrow.

SOUTH AFRICAN CORRESPONDENT

REVIEW
DIGESTS AND ANTHOLOGIES

THERE are two sorts of "digests," "anthologies" or "surveys" of the world and its wisdom—the "taster" variety and the "explainer" brand. Until very recently, courses in comparative religion were always, or almost always, supported by some textbook providing brief summaries of the various religions of the world, and ending with a chapter on the superior qualities of Christianity—Catholic Christianity, Protestant Christianity, or whatever *our* religion happens to be. This is the "explainer" type of survey, which gives local prejudice the similitude of impartial review. Often, the notice allowed to the most profound religious and philosophical conceptions the world has known is no more than a superficial mention by some sectarian author who has not the sense to understand what he is attempting to evaluate.

Fortunately, since orthodoxy in religion has become less and less an unconscious habit of mind, the "explainer" text is being replaced by the "taster" book, although this, while no doubt an improvement over the smug assurance of the "explainers," has its own peculiar weaknesses. There must be at least a half-dozen "world-bibles" on the market, today—collections of brief quotations from the major world faiths—pretending to afford a universal perspective of human belief. All that such books can do, at best, is to provoke a few people to more intelligent forms of study; at worst, they convey the impression to readers that they now "know something" about the religions which are quoted.

If anyone is in doubt about this, all he has to do—no small undertaking—is to gain practical mastery of the metaphysics and ethics of one of the great world religions, and then turn to almost any anthology of religion. He will probably feel that the presentation of the faith in what amounts to anecdotal form is worse than giving it no representation at all in the anthology. Often, the passages selected by the anthologist are poorly or woodenly translated; he is always under the constraint of too little space for adequate quotation; and, compiling his volume for those who read on the run, he seldom worries about mutilations imposed upon the texts.

It would be foolish, of course, to maintain that an anthology which receives careful preparation does no good at all. The best one of the sort we have been discussing is probably Lin Yutang's *Wisdom of China and India.* Aldous Huxley's *Perennial Philosophy* is a similar volume, inclusive of the Western tradition, with extensive commentary attached. It is not proposed to "condemn" these books, but rather to suggest that any sort of anthology suffers from absolute limitations. Mr. Huxley, it is true, hopes to disclose a common foundation in all philosophic religion—which he names in his title so that this work is intended to be much more than a mere "anthology," but we cannot overcome the impression that the book remains a kind of armchair synthesis, intellectually brilliant in places, but without the deep ardor that is always at the heart of true religion.

Another sort of "digest" book is the study of various religions and sects as "going concerns." Off hand, we recall three such books which have appeared in recent years: Leslie Belton's *Creeds in Conflict* (London, Dent, 1938), *I Went to Church in New York* by W. M. Bomar (New York, Graymont, 1937), and the just-published volume, *These Also Believe*, by Charles Samuel Braden (Macmillan). Mr. Belton's book is a warmly humanitarian discussion of creedal differences, honest but hopeful. Mr. Bomar provides a conscientious report of his visits to the meetings of a large number of churches, cults and sects, while Dr. Braden offers "A Study of Modern American Cults and Minority Religious Movements." At the outset, it should be admitted that books with the studied impartialitv of all three of these volumes could hardly have appeared in the nineteenth century. It is something that "impartiality" is now an ideal of such writers. Dr.

Braden, especially, tries to be scrupulously fair, and not even to smile at the more ludicrous aspects of cultism in the United States. But because he is so terribly "fair" in all his reports, *These Also Believe* is not critical in the least. And a book about religion, we think, *ought* to be critical if it is to serve any purpose beyond a mere amplification of the Census reports on religious bodies in the United States.

There is a sense in which all the sects and religions constitute separate paths to religious verity—there must be some truth, somewhere, in them all—but in another and more important sense, the individual is under a vital necessity to choose between them or even to reject them all. This is the sense which the "taster" books ignore. The "taster" habit in religion, and in surveys of religion, amounts to a bland acceptance of the institutional status quo. It is happily relativist as to religious truth, and indifferent, therefore, to metaphysical distinctions. It remarks no difference between Bible-pounding Fundamentalism and philosophical mysticism.

It could be argued that "taster" books on religion have no more importance than directories of restaurants. They treat the solution to the religious problems of life in terms of the "menus" of the various sects. There is nothing wrong, of course, with knowing what the menus are, but a vast confusion results when institutional religions or organized "cults" are mistaken for the paths to religious truth now open to the inquiring mind.

Our quarrel, in short, is with the assumption that any genuine discovery in religion may be made by or for religious institutions. Usually, if history can be relied upon, actual progress or growth in religious ideas has resulted in shattering the existing forms of religious organizations. The fact that the fragments which remain are almost immediately reorganized into new sects simply signifies the secularization of the new—or old—truth which has been declared.

The particular attachment felt by this Department for the *Bhagavad-Gita*—portions of which doubtless appear in *every* anthology of the religions of the world—is explained by the fact that this Scripture explicitly declares against the confinements of religious orthodoxy. In the second discourse, Krishna, the instructor, tells Arjuna, the seeker for truth:

> When thy heart shall have worked through the snares of delusion, then thou wilt attain to high indifference as to those doctrines which are already taught or which are yet to be taught. When thy mind once liberated from the Vedas shall be fixed immovably in contemplation, then shalt thou attain to devotion.

The meaning of this passage should be plain. It says that the tenets and doctrines of religious teaching are no more than "crutches," to be dispensed with as soon as possible—as a man might kick away the ladder after he has scaled a height from which he has no intention of descending. When the various churches and religious organizations are as candid as the *Gita* in urging their followers to emancipate themselves from institutional and even scriptural religion, then we shall manifest some serious interest in what they have to say. Meanwhile, statistical reports on the size, quality and design of the various "crutches" remain without interest. Such books never suggest that it may be possible to walk without any crutches at all.

COMMENTARY
PROBLEMS OF "JUSTICE"

THE issues raised in the South African Letter this week seem to need a bit more discussion. It is natural, we suppose, for South African whites to judge the "character" of the natives according to standards of Western civilization. A black who prefers frequent long holidays to regular employment may by these standards be termed "indolent" or "irresponsible." With respect to the use of liquor, his tribal mores include no cultural habits of "regulated" indulgence. He knows nothing of "gentlemanly drinking." The African native, in short—or the great majority of natives—is unable to follow the canons of constructive human behavior which prevail among the dominant whites. Instead, he becomes a failure at living the white man's kind of life, participating in the white man's economy, conforming to the white man's conceptions of sobriety, industriousness and reliability. His failure is in some degree comparable to what happens to a white man when he "goes native." The renegade white does not make a good black man. He tends to go to pieces because he gives up his old standards and fails to adopt new ones.

But no one compels a white man to "go native," while the South African blacks have no choice. The opportunity to pursue their natural, nomadic lives no longer exists. They must make some kind of an adjustment to the conditions of white civilization in order to survive, and Mrs. Robeson gives a measure of those conditions in *African Journey.* In many cases, her descriptions of the relationships between the two races are quoted from white anthropologists, sociologists and economists, and are far from being the biassed reports of a single visitor of African ancestry. While the comments of our South African Correspondent are valuable in showing that appearances can be deceiving in many respects, the central problem remains.

Here, on the West Coast of the United States, frustrations identical to those of the progressive African farmer were experienced by relief administrators who attempted to supply decent housing to Mexican families working in the agricultural regions of California. These people broke up the doors and shingles of their model dwellings for firewood, stacked the mattresses and beds against the walls and slept on the bare floor. But does this "unenlightened" behavior excuse the exploitation of racial groups as cheap, agricultural labor on the industrial farms of California? The conditions of peonage and the "servile habits" of exploited native peoples are not exactly their own invention, but grow out of the numerous compulsions of imperialism. We have, perhaps, to "treat them like children," for a time, but it seems important to realize that children who have been locked inside closets for months at a time seldom behave normally. We do not hold such children responsible at all, but their supposed guardians. It should not be unreasonable to suggest that this parallel applies to some extent to the way imperialist powers have treated native populations all over the world.

CHILDREN
. . . and Ourselves

MOST children reject all forms of regimentation which are imposed *from without,* chiefly, perhaps, because they sense that they will gain nothing from such subjection. But children will *want to work,* will *want to be responsible*—if they are given opportunity to feel the value of something better than the "getting-by" idea, which is largely a result of man's industrial divorce from the products of his labor. The child does not know how to acquire concentration, punctuality, and mature integrity, yet he can be fully willing to learn. He needs examples of these rare qualities around him, and he needs opportunity to make himself into such an example, without being hurried or coerced.

Over a number of years, some interesting experiments were undertaken in the turbulent city of Madras, in India. A Colonel Ford-Thompson, retained by the Madras Government as an advisory psychologist on problems of juvenile delinquency, brought order out of the chaos of many young lives by altering the children's conception of their relationship to society. He was dealing with a sort of hybrid population, caught up in the strained atmosphere of specialized, hurried city living, wherein many habits of irresponsibility incident to industrialization had already asserted themselves. He was a very disarming man, but the secret of his phenomenal success, attested by numerous Indian officials, was not so much in his personality as in the patience of his approach.

He told the children who had been classified as incorrigible and unmanageable that "discipline" was one of the very first things that all people must learn, and that they were probably quite unhappy if they had not learned it. But he told them that no one can know what discipline is unless he helps to make it himself. He was there, he said, to help them formulate their own rules of behavior and their own punishments for infraction of the rules. He discovered that a few of the children were particularly receptive to a beginning of this sort, and that when they had participated in the establishment of certain rules—and thus made punishment for infraction an impersonal and community operation—the others gravitated rapidly toward the same outlook. He knew, and he helped the children to know, that it was not going to be possible to bring an immediate end to anti-social behavior. Violations of agreement were going to occur and probably in considerable number. Some corrective action would be necessary, but they, the children, were going to have the opportunity of designing it and applying it themselves.

Colonel Ford-Thompson started out with the conviction that the *method* of discipline mattered very little, so long as the children participated in it and were therefore able to have a constructive rather than a negative attitude toward what was decided. And he unearthed some very interesting facts about human nature. He discovered, for instance, that the children invariably preferred an unequivocal punishment to equivocal lectures by authorities, especially when the latter left them in doubt as to their real status. When they violated a simple rule and received a simple punishment, they completed a process, full circle, and became as much a part of the community as before. They weren't really paying "a debt to society" in any useful fashion, but they were learning the law of equal cause and effect as applied to their own actions, and by themselves formulating the conditions under which the law would operate.

Readers may be interested in the extent of the opposition encountered by Colonel Ford-Thompson in his efforts to revise the psychological approach to delinquency. Among the many who wished that he had never appeared on the scene were the congenitally timid administrators whose only source of personal confidence was a system which depended upon unreasoning authority. Kindly enough as these persons might be in their private lives, they were

none-the-less shocked by the thought of what might happen to their ability to control students if the fear of arbitrary punishment were removed. But Colonel Ford-Thompson also encountered vicious attacks and underhanded attempts to secure his dismissal. In such cases, the opposition was characterized by men who were afraid of losing their prestige even more than their ability to maintain order among the activities of the children. There are supposed educators all over the world who resist all radical innovations *principally because they fear their possible success.* Colonel Ford-Thompson discovered that undesirable gentry of the latter sort had spread spectacular rumors about him among the children, in an effort to foment as much distrust and suspicion as possible. Colonel Ford-Thompson was featured, successively, as a man not right in the head, a brutal sadist, a violator of young girls, and a homosexual. Students in some schools refused to speak with him when he appeared to interview them. But no one, least of all corrupt administrators, can fool children forever; before quitting his position in Madras Colonel Ford-Thompson had not only earned a reputation throughout India, but had become the close personal friend of hundreds of children.

He also discovered that whatever confidence or trust he was able to inspire would be rapidly lost if he failed to put himself under the same "discipline" as that which governed the children. If he lost his temper, for instance, he had to be willing to take punishment, too. So, because he thought his work very important and something more than a "job," he identified himself with the children and with their disciplines. This increased their respect for him and also gave him a freshness of perspective which made children much more understandable to him than to the average adult. The title of his book, *Ask the Children* (now presumably in the process of publication) indicates his basic orientation. By letting the children play a part in creating their own patterns of discipline conducive to the development of responsibility, he compensated for many years of authoritarian mismanagement, and for many more years of the personal demoralization incident to too-rapid industrialization.

FRONTIERS

Psychology and Literature

IN *The Function of Reason* (1929), Alfred North Whitehead remarked to the effect that when a branch of science no longer concerns itself with the main issues of its field, its method is worn out . . . and, we might add, its inspiration gone. This is one good reason why most people prefer to read a good story than to delve into the researches of academic psychology. A story usually deals with the "main issues" of human life—or what many people think are the main issues—while academic psychology consistently ignores them.

Take for example this passage from a recent work of fiction:

> Her eyes were of the dark, brilliant type associated with a highly emotional temperament. Her nose was short, indicating a certain emotional instability; while the way she carried her head, the manner in which she pointed her chin, indicated independence and a love of freedom.

"Bosh!" the academic psychologist will exclaim. "Ever since Gall invented the pseudo-science of phrenology we have had to put up with that sort of fortune-telling!" And the academic psychologist will be more or less right. But ask him, in turn, about the qualities of "independence" and a "love of freedom," and you will find that modern psychology has exactly nothing to say that is not said as well, or better, in works of literature. He may be able to make an informing comment or two on the subject of "emotional instability," by borrowing from the theories of the psychoanalysts, but this will be because, during the past ten years or so, academic psychology has been forced to admit that the practical clinical experience of the analysts may have produced some valuable "insights."

The fact that psychology, as a field, has suffered more from inner schisms, rebels and run-away groups than any other branch of science is suggestive evidence of its impoverished condition. The most recent new departure is in the development of Parapsychology, pioneered by Dr. William McDougall and Dr. J. B. Rhine, of Duke University. They found that the narrow physiological approach of conventional psychology made it impossible for them even to consider a great range of psychical happenings, including telepathy, clairvoyance, clairaudience, and a number of other actual or supposed capacities of the human mind. Today, old-line academic psychology still hides its head, like an ostrich, from the facts revealed by Dr. Rhine's many experiments, while the rest of the world—even the rest of the academic world—is rapidly acknowledging that the Duke program has been successful in "naturalizing" for science a large and extremely important area of human experience.

The basic difficulty of academic psychology seems to have been to accommodate its methods to the forms of experience which the vast majority of human beings regard as needing to be understood. Take for example the psychological system known as Behaviorism, in which human behavior is explained as a series of complex reactions to external stimuli. In *Psycho-Analysis and Social Psychology* (Methuen, 1936), William McDougall asks and answers a pertinent question about Behaviorism:

> How does mechanical "behaviorism" deal with social problems? [The student] may find the answer succinctly given in a textbook of Social Psychology which is representative of many others, that by F. A. Allport. He will find several chapters which present succinctly the dogmas of strict behaviorism; while the later and larger part of the book discusses a variety of social problems in the purposive language of common sense and usage, without the least attempt to apply the mechanical principles of the introductory chapters. The fact that this book is used much more widely than any other is one of the signs of the times. It is only one of the many similar books which show a flagrant indifference to all consistency of principle and whose wide circulation implies a similar demoralizing indifference on the part of a multitude of workers, both teachers and students, in our field. But especially our young psychologist may draw the valid conclusion that mechanical behaviorism is quite helpless in the face of the problems of social psychology.

McDougall, of course, was one of the few modern psychologists who never gave up the central idea of man as a purposive being. He was satisfied that this must be a first principle in any system of human psychology, and as a consequence his books afford a valuable illustration of how the scientific method may be applied to psychological problems without sacrificing the idea of *human* beings.

It is to be noted that while the psychoanalysts have evolved concepts of human behavior which make it possible for them to discuss such matters as "emotional instability," they have no vocabulary for qualities like "independence" and "love of freedom." So, at the level of the highest human values, psychoanalysis, too, becomes sterile. The psychoanalysts are great critics of the twisted psyche; they tell us all about our guilty fears and our morbid imaginings. And they have done this, not by "analysis" alone, but by the creation—the "synthesis," one may say—of several quasi-personal entities such as the "id," the "ego," the "super-ego," and other less entified abstractions like the "libido" and the "ego-ideal." In other words, to provide meanings and explanations for experiences of the class with which psychoanalysis is competent to deal, these practitioners have had to postulate *unitary principles of action* in man, in order to make their theories comprehensible and practicable.

But nowhere in psychoanalytical theory—not even in the theories of Charles Jung—is there a unitary principle to explain *ethical* action, moral independence, or "love of freedom." As a result, a deep pessimism pervades the literature which is founded on psychoanalytical premises, the author playing more or less the part of Satan, as pictured in Mark Twain's *Mysterious Stranger*. The psychoanalysts, in short, have given us a science of human weakness, of fallibility and limitation, but none for the recognition and development of human strength.

One suspects that the novel will continue to be more popular than formal psychology with all those who are interested in the problem of making emotional ends meet, at least for as long as psychology continues to deny the ethical and moral realities in human life—to deny them, that is, as *independent* realities. The idea of man as a spiritual and moral being is still an esthetic or a metaphysical postulate, and not a scientific principle. It is difficult to see how science can claim any authority over the judgments of literature until this postulate, which underlies all worthy human activity, is adopted.