Volume II, No. 30
July 27, 1949

THE NATURAL LAW

IT seems to be one of the facts of life that wherever there has been an organized human society, some idea of "natural law" has prevailed sufficiently to give justification to the established order; or, in the case of revolutionary activity, to support the claims of those who want to replace the established order with a better one. When, during the Middle Ages, learned doctors of the Church wished to convert the lay population to docility and obedience, they discoursed at length upon the Natural Plan—they called it God's plan—which provided for kings to be kings, and subjects subjects. And in the eighteenth century, when enough of the people had reached the conclusion that the arrangements of this plan—God's or not—would have to go, they did not march to the barricades with only pikes and muskets in hand, but were led on by the consciousness of just men who felt they had seen the light—"to assume, among the powers of the earth, the separate and equal station, to which the laws of nature and of nature's God entitled them."

Then, in the nineteenth century, another sort of natural law came into prominence to justify the doctrine of economic freedom, now known as Free Enterprise. Sententious authorities reasoned from scientific analogies that the direction taken by expanding industry and commerce was ordained in the natural order of things. There were, of course, competing versions of the Natural Law. Karl Marx and his followers devoted themselves to the thesis that free enterprise was only a phase—and an ugly one, at that—in the history of modern civilization, eventually to be superseded by a new social order in which wealth would belong to everyone. This great transition, they argued, would take place under the natural law of social development, although with the assistance of determined revolutionists. And as soon as the implications of Marxism became known, counter-theories of natural law were produced without delay, denouncing socialism as a visionary folly that was opposed to the manifest laws of human nature.

Today, with the accumulations of two or three centuries of argument lying about, one can usually find either a "natural" or a "divine" law that will support almost anything, from slavery to anarchism. It is not surprising, therefore, to find that the most recent learned conclusion about the Natural Law is that it does not exist at all, except in the dreams of enthusiastic human beings. A little over two years ago, the executive officer of one of the most distinguished publishing companies in the United States declared that the authors of the Declaration of Independence presented their countrymen with only another "unprovable hypothesis" in the assertion that men are possessed of certain "unalienable rights." It is certainly true that, since the eighteenth century, no new theory of natural law and rights has appeared to capture the public imagination; and true, also, that all the old theories have lost their revolutionary flavor, being repeated mostly to win moral support for the top-heavy structures of existing institutions, But this situation ought not to obscure the fact, equally evident from history, that no great project of human betterment has ever been launched except by men who felt that they were fulfilling a higher law—striving, one might say, to bring about on earth the order of things that exists, ideally, in "Heaven." It may even be wondered if this is not the essence of human destiny—for men to be forever occupied in the task of trying to make spiritual principles work in the world of matter.

It comes to this—that either human beings have a more than physical destiny to fulfill on earth, or all idealism is a gigantic self-deception. If the laws of nature seem themselves to produce conflict, then the choice is between the view that strife and suffering are inevitable and the idea that a *higher* law exists under which the disharmony may be resolved. This conception of a higher law has animated and inspired the teachers of world religions, and most of the great philosophers and reformers of history. And there is a sense in which all these teachers have maintained that the higher law is also a natural one.

"Every vice," someone has said, "is a virtue carried to an unlawful extreme." The truth of this is at once evident in the interpretations of natural law devised by men with partisan purposes. There are as many "natural laws" as there are forms of behavior, so that men with active intellects have no difficulty in constructing theories of government or human behavior which exclude all facts and principles contrary to their own views. Within our historical period, since men became conscious of the problem of the conflict between freedom and authority, it has always been attacked as a legislative problem or one for constitution-makers to solve. It is certainly a problem which legislators must meet, but questionable that they should be expected to solve it. Religious teachers in particular, men who have seemed to know more about the higher law than others, have always avoided the making of constitutions. Buddha rejected all earthly authority on his own account and Jesus seems to have paid as little attention as possible to government, except as a necessary evil. Plato, perhaps, belongs in another class, and in view of his writings on the problems of government, he can hardly be said to have ignored them, although it might be urged that Plato, by making his divisions of society in the *Republic* correspond to levels of motivation within the individual man, attempted to deal with the needs of the individual and those of society at the same time, hoping thus to avoid the fallacies of both totalitarianism and anarchism. In any event, it seems worth while to consider the possibility that for *human* societies, the attainment of a balance between freedom and order depends upon both a philosophical solution of the conflicts in human nature and a social solution of the conflicts among men, but that the social solution, while important, is essentially subordinate to the philosophical solution.

Our present laggardly "democratic" society proceeds on the practical assumption that while the philosophical solution is important—respect for "freedom of religion" and of "opinion" declares its importance—the social solution is paramount, and whenever a particular freedom of thought or conscience is weighed against the requirements of "good government" or national security, the freedom is usually sacrificed. In other words, respect for philosophical freedom is only a tradition, while the maintenance of the power of the organized community—the sovereign State—is deemed an absolute necessity.

The difficulty in introducing checks to this process lies in the fact that people who believe in only social or legislative solutions find it difficult to imagine any return to a pondering of the individual moral or human situation except by the establishment of a State religion. The idea that the individual can do anything by and for himself is foreign to most "socially-minded" thinkers, who have come to regard the individual as so much a creature of environment that it seems aimless to them to propose any measure which stops short of a decisive reshaping of the external conditions of life. In fact, it is from this intense desire to change external conditions that earnest humanitarians who are preoccupied with social solutions often become totalitarians in method.

This brings us to the dilemma of our time. In previous epochs, when oppressive conditions became unbearable, the discoverers and advocates of a higher law could always fix upon a common enemy—a human oppressor whose rule was condemned as in violation of the moral order. It might be a French or English king or an imperial despot whose divine right must be challenged in the name of human equality. It might be a privileged class that needed to be stripped of its hereditary pretensions or some other artificial status carried forward from the past. But today, the dominant institutions of at least several of the great nations of the world are ostensibly based upon principles of justice, freedom and equality. The higher law, as the source of inspiration for political constitutions, has been invoked again and again—so often, in fact, that nearly every conceivable mandate of the higher law as regards a just social solution for the conflicts and differences among men is already a familiar slogan to many millions of people. In what more, it may be asked, can the higher law instruct us? We know about the greatness of the common man—his unalienable rights and his inviolable dignity—we have monuments and documents to proclaim our beliefs in these matters. We have defeated in war a powerful enemy who dared to challenge these beliefs and are ready, or say we are ready, to take all comers with similar evil inclinations.

Yet the thoughtful members of our society are continually revealing their sense of having been betrayed. Almost nobody any longer thinks that just "one more war" will eliminate the last great threat to free institutions. Instead, more and more people are impressed by the shallowness and insipidity of the "freedom" we have, and are wondering if it is possible that we have won all the outer battles but lost most of the inner ones. Why, after unseating all the personal tyrants in sight, should we so easily be enslaved by institutional ones? Young men whose grandfathers thronged to America after 1848 to avoid the military conscription of European reaction are now informed that conscription is the "democratic" way to defend the rights of man. In two or three generations, the enterprise which once afforded so much "freedom" to individuals in economic pursuits has become absorbed by monstrous corporations so large that all sense of personal human identity is lost in them. The idea that the least government is the best government has been entirely reversed, the government now being expected to "provide" for the people.

Cultural institutions have undergone a similar transformation. In the seventeenth and eighteenth centuries, the printer of books was usually a friend and advocate of human freedom. He was consistently on the side of the minorities which were devoted to new and liberating interpretations of the higher law. Today, the printer is no more than a skilled technician who cares nothing for what he prints; the publisher is a businessman in either voluntary or involuntary servitude to the god of Profits. The farmer, once the hope of Thomas Jefferson and the backbone of grass-roots democracy, is rapidly joining the ranks of the industrialist and submitting his products to the same processing and marketing techniques that rule other fields of commodity distribution. Only two principles have meaning for the man in business—volume and profits, and the structure of modern society has grown up in strict subservience to these objectives.

As selling has become "scientific," living has become tepid. Too many people think of their lives in terms of the many things on which they have become dependent, and how miserable they would be without them. Not only their food and drink have been adulterated and narcotized, but their very life of sensation and commonplace intellection has been integrated as the "consumer factor" with the entire socioeconomic process of our civilization, with graphs compiled to keep track of its superficial oscillations and faddist tendencies.

All this takes place under the aegis of a society founded upon the higher law, and passes, in common speech, as the freely chosen form of the "pursuit of happiness." No wonder that the higher law now meets with contempt in sophisticated circles, and has few but partisan advocates of either politics or religion. And yet, if human idealism is to survive the vicissitudes of the present, some deeper aspect of the higher law will have to be made manifest. If institutions created to facilitate the expression of freedom are prone to grow into massive confinements of the human spirit, then a search must be made for the point beyond which the "virtue" of an institution becomes a "vice"—beyond which the power it exercises becomes an "unlawful extreme." And when that point is reached, men must somehow find the initiative to desert the institutions which have developed into instruments of impersonal tyranny.

Here, unfortunately, the argument becomes tenuous indeed, for how are we to know when that limit has been reached? We see no choice in this matter but that of simple individual resolve to love freedom and truth more than the fruits of even petty tyranny. Here, the compromise that the strong may make in the interest of the weak will lie in their willingness to part with the security to which others cling, in order to live free lives themselves, and so to illustrate the possibility of an unentrenched existence, if a hazardous one, for human beings. We know of no advance in history where there were not men and women willing to make this choice.

It should be evident that so long as the major political forces derive their energy from the widespread sense of personal impotence and fear, no social solution can be anything other than totalitarian in character and effect. People who face this fact will at least have realized that no new sense of the meaning of the higher law can emerge to inspire a legislative program or even revolutionary political reforms, but that the problem, now, is to discover *what the individual can do, as an individual, to serve society.* This, incidentally, was precisely the discovery sught by Buddha and by Christ, both of whom lived in periods of strongly established institutions.

The practical difficulties surrounding a course of this sort are many. Getting down to cases, it becomes a question of how many hostages a man is able to give to the society in which he lives and still retain his integrity. His problem is always to keep the main current of his life moving toward greater or more comprehensive moral independence, without being arrogant or self-righteous about it. A lot will naturally depend upon how he looks at what he does—more, perhaps, than *what* he does. The life of the independent artisan or craftsman has a natural attractiveness for the individual who wants to contribute some positive freedom to his society. A teacher can still do much simply as a human being, whatever the limitations of the educational system. A writer, dealing with the easily perverted medium of words and ideas, has a harder time. The small businessman is confronted on the one side by a tax rate devised to satisfy the needs of an incalculably wasteful war and welfare State, and on the other by the competition of large companies with enormous productive capacity. Nearly every form of remunerative activity presents the same general obstacles to the man who wants to plan his life and his livelihood according to a conception of freedom which does not involve him in the institutional pattern of the age—the pattern created by the profit motive, expanded by technology, crystallized by bigness, and, more recently, defended with the fanaticism of unreasoning fear.

It is probably best to acknowledge that whatever a man who is determined to live a morally useful life decides to do, he will have serious obstacles to overcome and will have to work at least twice as hard and be twice as "efficient" in whatever he does. For he is trying to prove the reality of the higher law in the difficult circumstances of the twentieth century, and to disclose something of its meaning for a generation that is bewildered almost beyond description. But he has this advantage: his personal discovery, if he makes it, and his example, if he sets it, can never be taken as a rule for the external government of men. Rather, he will show that the quality of excellence in human life is a result of a personal meeting with and a personal victory over his circumstances, whatever they are, and not in the arrangement of those circumstances for him, by somebody else. And if he can demonstrate this, he will have revealed something of the *principle* of freedom in operation, instead of offering his fellows only an echo of yesterday's slogans of social revolution.

We have *had* about all the social revolutions and political reforms that are possible, and now are busy building bastions against the terrors of the freedom we possess. We have to learn to become free individuals, first, before we are ready even to talk about the forms a free society ought to take.

Letter from
INDIA

BOMBAY.—For some time, now, there has been an organised attempt in this country to enable Indian students to change from the agitational and demonstrative activities of the past to a share in the constructive tasks of the present. Enlightened groups of University graduates have seen the need to plan the basis of the student movement anew, and to help the educated youth of India to bear the responsibilities thrust upon them by the advent of political freedom. Under a resolution passed by the All-India Students' Congress at Bangalore last year, a National Preparatory Committee was formed to lay down the lines of a National Union of Students. The Committee has almost completed its work and will soon bring into being the new Organisation.

The chief feature of the proposed student union is its non-political character. It will confine itself to matters of common concern to all students and eschew extraneous points of controversy. Such an Organisation is expected to enthuse every youth in the country, regardless of political, social and religious beliefs, and to function as the authentic expression of the aspirations of the entire student community. It will work for a progressive system of national education, the liquidation of adult illiteracy, social orthodoxy, communalism and parochialism of every kind, the arrest of tyranny and exploitation and the fulfillment of India's freedom through enlightened democratic socialism. With these exalted ends in view, the National Union of Students will attempt to build a corporate life among the students of different provinces and promote intellectual and cultural cooperation between them.

Other schemes to encourage the Indian youth movement are contemplated, but will take time to materialize. One is a Youth Organization sponsored by the Indian National Congress, and another is an independent Sevak Sangh of youths pledged to Gandhian ideals and to constructive work among the masses of the Indian people. It is hoped that the Indian youth movement will prove of immense value in educating both the intelligentsia and common citizenry of India. At any rate, an incalculable amount of unspent youthful enthusiasm can be directed into purposive channels instead of being dissipated in wasteful political propaganda.

Unfortunately, the average Indian student or youth of today is more inclined toward slogan-shouting, ideological philippics and destructive criticism than to a dispassionate study of the needs of his country or a genuine interest in the problems and conflicts of our time. He holds numerous uncriticised assumptions and is often either an ardent advocate of modern scientific materialism or a fanatical champion of religious obscurantism. His attitude towards Gandhi, for instance, may be a mixture of contempt and misunderstanding. Though he pays conventional respect to Gandhi as a national figure, he is either unwilling or unable to appreciate the value of Gandhi's philosophy and the magnitude of his contribution to contemporary social thought. The meretricious magic of popular "isms" and fashionable fads which have won "academic respectability" has rendered many an intelligent student impervious to the spiritual currents of the country.

If the student and youth movements, therefore, are to succeed at all in realizing their ideals, a deeper devotion to the pursuit of pure truth, a greater hesitation and humility in coming to conclusions and a surer zeal for constructive work are among the first requirements. The emphasis should gradually shift from personalities to principles, thus laying a firm basis for cooperative action. That all this can be done is the conviction of those who seek to concentrate upon the primary task of self-education and individual regeneration.

This task is sufficiently absorbing to leave the student neither the time nor inclination for the precocious and premature undertaking of political burdens. The National Union of Students cannot do better, therefore, than to prepare its members for the burdens and responsibilities which await them in later life. As has been often said by Gandhi, "a student's duty is to study the various problems that require solution. His time for action comes after he finishes his studies." If this new development of the student movement is accompanied by a general realization of the duties of youth to itself and to others, a thrilling vista of constructive activity lies before the students of India—the opportunity to become the pride of the country and the hope of the future.

INDIAN CORRESPONDENT

REVIEW
A GREAT BOOK

IF a man should wish to restore his faith in the usefulness of books, he can do no better than to read, to himself or with a group of friends, Plato's account of the death of Socrates—the *Phaedo.* There are many things to be said in favor of the Great Books program which had its origin at the University of Chicago, but that as part of its scheme of study and discussion a reading of Plato has become a personal experience for thousands of people is the most complete justification of the Great Books program that we can think of.

This applies in particular to the *Phaedo.* A man does not set down the *Phaedo* and say to himself, "Here is great art and high thinking." He is too busy with his thoughts for literary or even moral judgments of a formal nature. To share the almost unbodied genius of Socrates for an hour or so is a kind of initiation into the mysteries, nor does the reader wonder which mysteries they are, or what some critics might say about them. The *Phaedo* opens a kind of artesian access to his own heart and sets the scene for endless subsequent dialogues that he may hold with himself.

The Phaedo is a book for any moment of leisure, not just those reserved for quiet reflection. The reflections of Socrates were not pursued in genteel retirement, but in the market place and on the battlefield. The man who supposes his worries and responsibilities give him no time for philosophy can learn from the *Phaedo* that the best thoughts of Socrates came to him on the day he was to be put to death by the Athenian authorities—a situation which would have caused most people considerable worry, although, at the same time, relieving them of at least some of their responsibilities. Only a little receptivity on the part of the reader enables Socrates to capture his attention, and no one can read the dialogue through without some danger of being snared as a disciple. Socrates wins without really trying, as he won in his contest with the Five Hundred who condemned him to death, as he won with Crito who wanted him to escape through bribery of the prison guards, and as he has been winning ever since. His victory is described by the English Platonist, A. E. Taylor:

> Socrates created the intellectual and moral tradition by which Europe has ever since lived. . . . For more than two thousand years it has been the standing assumption of the civilized European man that he has a *soul,* something which is the seat of his normal waking intelligence and moral character, and that, since this *soul* is either identical with himself or at any rate the most important thing about him, his supreme business in life is to make the most of it and do the best for it.

Here, in a few words, is the explanation of the power of the *Phaedo,* and to a lesser degree, of the other Platonic writings concerning Socrates. To meet in conversation with a man, wholly rational, unpretentious, capable of pithy, simple utterance, of humor and friendliness, withal sharp common sense, a man who speaks of the life of the soul as an ever-present reality to him—as though the births and deaths of bodies were but superficial transformations in the soul's existence, and hardly to be noticed at all—to meet such a man and to hear him speak without the pomp and mannerisms with which the "soul" is customarily examined is an extraordinary thing. Socrates does not say, "Attend to me, for I know all about such secrets." He is no revelator with a talent for stirring the religious instinct. The feeling that he probably has some kind of certainty which the rest of us lack rises unbidden and remains without challenge, for the Socratic fervor for truth has little zeal for conversion and raises no hackles of the skeptic's cherished independence of mind. There Socrates is; that is how he behaves, what he thinks and says; you may take it or leave it; mostly, you want to take it. It is taking what goes with the Socratic philosophy—up to and including the hemlock, if need be, although that is not the worst—that usually comes hard.

He sits on the edge of his bed in the Athenian jail, his old and young friends gathered around, and speaks of his conviction that the soul is imperishable and immortal, untouched by death. The soul did not begin with the body, nor will it cease when the body is gone. A man's knowledge of the principles of things is not something that he learns after the beginning of life, but something recalled by the soul from former existences—we awaken it rather than "learn" it. The soul cannot be a harmony of the body, an efflorescence of the interrelation of its parts, for the soul may rule the body, restraining it, ordering it about, subjecting it to much pain in order to achieve some purpose of the soul. How could the product of the body govern its maker? Nor is death a thing of bitterness to the soul. What is death but a cessation of the distractions of the senses? And is not the philosopher, the seeker after truth, wholly occupied in subduing the illusions produced by the body?

Mortal things are generated from their opposites—heat from cold, the small from the large—but absolute things, things which are of the nature of the real, like the soul, are not subject to the alternations of the opposites. But even if death is not to be feared, neither is it to be sought in self-destruction. A man does not belong wholly to himself, but is also a kind of "property" of the gods, without the right to take his own life. This law, says Socrates, "unlike every other law to which mankind are subject, is absolute and without exception," and he quotes the secret teaching of the Pythagorean brotherhood to the effect that although life is a kind of prison for the soul, it is a confinement from which a man ought not to escape or to set himself free by death.

Having established the immortality of the soul to his own satisfaction and that of his listeners, Socrates proceeds to some conclusions.

> But then, my friends, said he, we must think of this. If it be true that the soul is immortal, we have to take care of her, not merely on account of the time which we call life, but also on account of all time. Now we can see how terrible is the danger of neglect. For if death had been a release from all things, it would have been a godsend to the wicked; for when they died they would have been released with their souls from the body and from their own wickedness. But now we have found that the soul is immortal; and so her only refuge and salvation from evil is to become as perfect and wise as possible. For she takes nothing with her to the other world but her education and culture; and these, it is said, are of the greatest service or the greatest injury to the dead man, at the very beginning of his journey thither. For it is said that the genius, who has had charge of each man in his life, proceeds to lead him, when he is dead, to a certain place, where the departed have to assemble and receive judgment, and then go to the world below with the guide who is appointed to conduct them thither. And when they have received their deserts there, and remained the appointed time, another guide brings them back again after many long revolutions of ages. So this journey is not as Æschylus describes it in the Telephus, where he says that "a simple way leads to Hades." But I think that the way is neither simple nor single; there would have been no need of guides had it been so; for no one could miss the way, if there were but one path. But this road must have many branches and many windings, as I judge from the rites of burial on earth.

Socrates, the ragged philosopher of the streets of Athens, was the perfect cosmopolitan in the world of ideas. He took counsel from Homer, from custom, from the Pythagoreans—from, indeed, any source at all which offered ideas worth considering—but most of all he listened to the voice of reason and the inner god he called his daemon. That is why Homer, the poets and tradition acquire so much persuasion when Socrates repeats them. He is not citing "authorities," but revealing the integrity of his convictions by showing how and why he has adopted them. He was a man whose slightest opinion had something of the living truth about it, and this is why his views about the soul, without church to preserve them or priest to echo them, have spread around the world.

COMMENTARY
RIGHTS AND DUTIES

BENEDETTO CROCE, the Italian philosopher, is cited by the *United Nations World* for July on the meaning of "human rights." The quotation seems so pertinent to this week's discussion of the Natural Law, providing what is perhaps a clarifying distinction, that we quote it entire:

> Declarations of rights (of the natural and inalienable rights of man, to quote the French Declaration of 1789) are all based upon a theory which criticism on many sides has succeeded in destroying: namely, the theory of natural right, which had its own particular grounds during the sixteenth, seventeenth and eighteenth centuries, but which has become philosophically and historically quite untenable. Nor can we argue from the moral character of such rights, for morality recognizes no rights which are not, at the same time, duties and no authority but itself—this is not a natural fact but the first spiritual principle.

Croce abolishes the idea of "natural rights," but only to restore them with the higher status of a "spiritual principle," adding as their corollary, however, the duties which give rights their claim to recognition. The difficulty, then, with legislating on behalf of natural rights is that as political values they easily become separated from the idea of duties and all the moral qualities which derive from a strong sense of duty in human beings. A bill of rights is easy to make into law, but a bill of duties can be enacted only by individuals.

What is human "duty," anyway? As MANAS has elsewhere pointed out, the common idea of duty is what other people, for traditional reasons, expect us to do, and what we don't much care about doing. For centuries, an atmosphere of moral suasion has pervaded the idea of duty, as though it were a form of unpleasantness devised by the caretakers of our morals to counteract the wickedness which began with the Original Sin. The burden of our article, "The Natural Law," is that we need a new conception of duty and new reasons for doing it. It seems evident that a duty free from external or even psychological compulsions will be a more spontaneous form of action than any past "righteousness" smiled upon by the community. It will be action more akin to the life of Socrates than to the life of the Saints, springing from personal discovery of where the deepest meanings lie, instead of a longing to get to Heaven. Freedom in other words, like salvation, is something to be built, not bought.

CHILDREN
. . . and Ourselves

DISCUSSION of the impact of Gandhian thought on education stimulates a desire to isolate, if possible, the chief articles of Gandhi's own faith, out of which the various phases of his "Basic Education" grew. We cannot, it seems, understand any well-defined "social" point of view unless we are able, first, to grasp the essentials of its author's conclusions on philosophical questions.

One clue in this instance is that Gandhi never tired of saying that one must strive for simplicity, truth, and nonviolence—all at the same time. As this belief, under development, grew into the cornerstone of Gandhian education, it becomes important to consider what Gandhi meant by these terms.

Gandhi's great faith in the spiritual potential of the human being apparently did not cause him to overlook that nearly all humans have feet of clay. When Gandhi stressed "simplicity," indicating the unlikelihood of anyone achieving consistent non-violence or truthfulness unless he were content to live on an extremely simple scale, he was pointing out that the man who becomes engrossed with possessions will find it exceedingly difficult to be truthful and also difficult to be non-violent.

It is natural, perhaps, that Gandhi's advocacy of "simplicity" for Indians should seem almost humorous, in view of the fact that Indian life, for the great majority, is already quite simple from sheer economic necessity. But two things must be borne in mind: First, many of India's political leaders who suffered jail sentence after jail sentence, and who learned to spend their spare time with a spinning wheel, were members of well-to-do families. Secondly, if it should be true, as Gandhi has said, that genuine simplicity is hard to achieve, those who have already achieved quite a bit of it should be able to see more of its virtues. It is commonly supposed that men want what they do not have, it following from this that the excessively wealthy should appreciate simplicity the more. Yet this is seldom true. We do not, apparently, develop virtues by being suffused in an atmosphere which fails to contain them implicitly.

It is said that Lord Lothian, after a visit to Sevagram, remarked on departing that he had never before understood what Gandhi meant by linking simplicity, truth, and non-violence together. As the Gandhian disciples say, utter simplicity has to be lived before the individual can feel its effect on his ability to be "truthful" and "gentle." And there is little doubt that our violence, our falsehoods and our hypocrisy stem in part from what John Steinbeck has called "the poison of possessions." (Steinbeck's re-telling of the old Mexican folk tale, *The Pearl,* is a persuasive argument for the Gandhian idea of the simple life.)

Gandhi's reasoning might be summarized in some such fashion as this: When a man has many possessions—when he has, for instance, highly sophisticated tastes in food and ornamentation—something of Himself becomes involved in his attachment to such things. And when we lose something of our essential energies to a host of possessions, there is little or nothing left to "give" to our fellow humans. We do not,. in such case, even have time or energy to appreciate the most elemental beauties of nature.

This last seems to be important in a subtle, rather indefinable way. The man who feels at home in the natural world, who derives inspiration from a sunset, a plant, a tree or a mountain, has established a kind of rapport which can never be disturbed by changing social conditions or by dislocations in personal relationships. But full appreciation of "nature" depends on far more than the availability of beautiful scenery. Gandhi and his closest friends at Sevagram were probably better "nature-lovers" while strolling at evening along the rutted flatlands near Wardha than the average American summer tourist who manages to reach the Canadian Rockies or the High Sierras of California.

To follow this train of thought a little further, it might be remembered that a part of Gandhi's inspiration for non-violence came from Henry David Thoreau's essay on *Civil Disobedience*—the Thoreau who lived at Walden Pond in Massachusetts and who has become, for many in America, almost a folk symbol of the appreciation of the beauties of extreme rusticity. Perhaps it was because Thoreau and Gandhi learned what balance and harmony could mean at the most elemental level that they became so acute in detecting disharmonies in social organization. At any rate some sort of "religion of nature" diffused itself throughout the lives of both Thoreau and Gandhi, and aroused a consequent fervor to crusade for principles which could bring to the affairs of men the same serenity as that which arises from a man's knowing relationship with nature-forces, or his knowing use of the simplest tools of daily life.

The Gandhian program for education was built upon the assumption that what our Western psychologists call "integrated personalities" will develop best if children are never encouraged to move beyond those facts of nature and facts of society which they can thoroughly comprehend. Gandhi's intent was to produce men and women who would always stand on solid ground before putting the next foot forward, and he thought that there could be no solid ground unless one had first mastered and learned to feel at home in carrying out the basic processes of the regional economy.

Gandhi's critics have complained of the "excessiveness" or "impossibility" of the type of asceticism he apparently demanded. His views on birth control, on the undesirability of any seasoning for food, and so on, obviously challenge the conception of "good living" accepted throughout modern civilization. But insistence on a consideration of such things seems more the insistence of an educator on certain illuminating points of emphasis than a form of religious fanaticism. It has never been reported that Gandhi burned with righteous indignation at the indulgences of his fellows, and he was, in most respects, among the most tolerant of men. But as a discoverer of "soul force" in social and political affairs, he demanded the right to be heard on the absolute necessity of each individual to *strengthen* his "soul force" by refusing to allow dissipation.

Gandhi once said that he felt especially happy that the inhabitants of a certain province in India "don't eat chilis." Was this because Gandhi was saturated with self-righteousness, or because of his conviction that all revolutionary activity begins with men and women who are pared down to essentials, unconfused by appetites not yet brought under control? It is apparent from the extensive record of Gandhi's conversations, moreover, that he was not primarily looking for men and women who avoided airplanes, automobiles or chili peppers, but was looking for manifestations of soul force—wherever they might appear.

This account of Gandhi's educational philosophy may be highly interpretive, but such attempts to grasp the mental and moral atmosphere of an educator are necessary, for factual information gives us only the shell of the seed—ideas which produce revolutionary "programs."

FRONTIERS
The Making of Hypotheses

EVEN a modest investigation of the typical processes of scientific discovery—at their earliest stages, before technology takes over—can be a fairly fascinating task, for it is soon apparent that scientists, especially the originators in science, are almost invariably inveterate and shameless mystics. That the secrets of nature disclose themselves to workers in science in sudden flashes of "intuition" is now so well recognized that for some years the General Electric Company has conducted a "course" for inventors, attempting to apply the "principles" of discovery as described by a number of successful innovators in science. Mr. C. G. Suits, chief of the General Electric research division, has summarized the universal experience by saying, "Hard work invariably precedes the flash of inspiration," but the question of what, exactly, the flash is or where it comes from cannot be generalized upon at all. One engineer "insists that intuition is an awareness of Absolute Truth—a sort of spiritual receiving set that permits the owner to tune in broadcasts of universal knowledge." A famous designer of airplanes—probably Sikorsky—regards it as "a new sixth sense, enabling its fortunate possessor to see ahead in time and become aware of future events long before they happen." Another scientist feels the presence of a "guardian angel" who whispers advice and prevents mistakes, while a prominent chemist "gets the impression that unseen hands are guiding his operations."

In 1931, Professors R. A. Baker and Washington Platt gathered testimony on this subject from 1450 scientists. The general conclusion, while lacking the interest of personal interpretations such as the "guardian angel" idea, is in keeping with individual accounts of what is involved in discovery:

> All agree that there must be a long period of investigation of data, then a period of assimilation of facts until the mind has grasped them perfectly, and then a season of complete mental rest. It is during this rest that the hunch comes bursting in a flash as if heaven-sent.

The "hunch" is described as arising from or through a wide knowledge of the facts, but as essentially "a leap of the imagination" far beyond the merely necessary conclusion that might be reasonably drawn from what is already known. The time of the inspiration is most frequently during the drowsy period, just preceding sleep, or upon awakening in the morning, or when the conscious mind is "dallying" with some unrelated subject.

Students of the history of science are under particular difficulties when having to write about the manner in which hypotheses are made. Cohen and Nagel in *Logic and the Scientific Method* delay this problem until the last section of their chapter on hypotheses, and there fall back on the explanation given by the English mathematician and logician, De Morgan, nearly eighty years ago:

> The inventor of hypothesis, if pressed to explain his method, must answer as did Zerah Colburn [a Vermont calculating boy of the early eighteen-hundreds] when asked for his mode of instantaneous calculation. When the poor boy had been bothered for some time in this manner, he cried out in a huff, "God put it into my head, and I can't put it into yours."

Mr. Suits of General Electric has not greatly improved upon this "hypothesis." He borrows from a colleague the idea that "hunches" leading to discovery scurry around in the brain like birds in a cage. Occasionally, one of them finds an exit unguarded by preconceived ideas and flutters out into the conscious mind where the inventor can get at it. Even if the birdcage theory is not appealing, Mr. Suits, writing in the *American Magazine* for December, 1945, makes good use of the notion that the weight of tradition obstructs original thinking:

> What stifles the creative spark? It could be that our present system of teaching both at home and in the schoolroom, squashes originality. "Education" means literally a "drawing out" of powers within the mind. In most classrooms today it is anything but that. Instead of being taught to think, children are

> taught to parrot the great thoughts of the "authorities"—which all too often turn out to be wrong.
>
> If we want Edisons and Whitmans—and America can use them!—our schools will have to de-emphasize mere memory drills and start teaching intuition.

The fact that great inspirations come at casual moments, by informal invitation, when the mind is no longer straining after them, seems almost a law of human creativeness, true of artists, scientists, and original thinkers of every sort. Mozart told how his compositions came to him, almost ready-made, in a stream. "Whence they come, and how, I know not," he wrote, "and I have no control over them." He added: "Those which come to me I retain in my head, and hum them to myself—as others, at least, have told me." According to his biographers, Mozart sometimes carried entire compositions around in his head for days before writing them down.

Perhaps the most extraordinary instance of a "flash" of scientific discovery was that which came to the German chemist, Kekulé, during his stay in London in 1865. One summer evening he went for a bus ride from Islington to Clapham. As he tells it:

> I fell into a reverie, and lo! the atoms were gambolling before my eyes! Whenever, hitherto, these diminutive beings had appeared to me, they had always been in motion, but up to that time, I had never been able to discover the nature of that motion. Now, however, I saw how, frequently, two smaller atoms united to form a pair; how a larger one embraced smaller ones; how still larger ones kept hold of three or even four of the smaller, whilst the whole kept whirling in a giddy dance. I saw how the larger ones formed a chain. . . .

Arriving home, Kekulé spent part of the night sketching his dream of the atoms, and when he was done he evolved a system of formulae to represent the molecular structure of organic compounds. He had dreamed the architecture of the benzene molecule. Later, in Ghent, he dreamed of chains of atoms in snake-like whirls. He saw one of the "snakes" bite its own tail; he awoke, and developed the idea of what chemists now call the benzene ring. The Freudians, indifferent to both the progress of chemistry and the mysteries of intuition, years later accused Kekulé of an Oedipus complex because of this dream—a judgment which, more than anything else, exposes how one supposedly "scientific" hypothesis that has gained the authority of a prejudice can blind psychologists to much more important matters.