FROM MORALITY TO ETHICS

WAR is a subject that cannot for long be left alone. The prospect of world-destroying conflict hangs over all peoples like the sword of Damocles, but is unlike it in that the weapons of modern war, according to expert testimony, have the capacity not only to slaughter a large proportion of the population of the earth, but will also unfit the planet for habitation. Dozens of carefully written books spell out these Some of the books propose farpossibilities. reaching decisions in order to make nuclear war less likely; others declare that putting an end to nuclear war is a vain enterprise unless we are able to outlaw any sort of war. Still others find this goal "utopian" and propose what amounts to a gradual reeducation of the human race in the ways and necessities of peace. All such writers seem to agree that putting an end to war will, as they so often say, require a "change of heart" before anything significant in behalf of peace can be accomplished. But they add little, usually, about what is involved and implied by this expression.

Let us say, then, that "change of heart" means a basic alteration in what may be called "moral outlook." It means learning to understand and identify not only warlike behavior but also the forms of action that in time make war seem unavoidable. Yet the fact is that we have little understanding of what we mean by "moral" save that a moral individual is one who distinguishes right from wrong and chooses to do right. For at least a century, "morality" has been taken somewhat for granted, without any attention being given to such questions as, "If humans have a moral nature, does it have structure?" How might moral development be defined and pursued? The high religions of the past have things to say about this, but only lately have they received more than casual notice. If a change of heart is what is called for, then this question requires an answer.

One of the good books about war, Weapons and Hope, by Freeman Dyson, conducts the reader to

questions of this sort, but attempts no answer. Yet the book should be read for preparation. Dyson is a writer with the rare faculty of being able to identify with opposing points of view concerning war, which he does fairly and maturely in his book. It provides what we might think of as raw material for the creation of a better moral outlook. He has himself had something of a change of heart and his writing is suffused with the resulting feeling, although, as a former warrior, he has nothing of self-righteousness in him, and he leaves no one outside in his discussion. One could say that he sets the problem or problems of decision for us all in his last chapter:

The dominant theme in the history of our century is the tragedy of two world wars. The just cause with which each world war began, the fight for freedom, was corrupted and almost obliterated by the growth of the modern technology of killing. The heritage of this tragedy is the deployment of nuclear weapons in quantities so large as to obliterate any conceivable just cause in which they might be used. The cultural patterns of the past persist, and the safeguards regulating the use of these weapons are not proof against technical accidents and human folly. The concepts underlying our present strategic doctrines are morally repugnant and politically sterile. We are caught in a chain of tragic consequences, unfolding from the actions of our fathers, like the force of inherited destiny in the old Greek myths. . . . Morally, we must arouse the conscience of mankind against weapons of mass murder as we roused mankind against the institution of slavery a hundred and fifty years ago. . . .

There is a chance that we may now be at a historical turning point, with mankind as a whole beginning to turn decisively against nuclear weapons. If the turning is real, it will find appropriate political forms in which to express itself. If the turning point is not real, no political program can succeed in bringing us to nuclear disarmament. So this last chapter is concerned with humanity and morality rather than with weapons and politics. Napoleon said that in war the moral factors are to the material factors as ten to one. The same ratio between moral and material factors should hold good in our struggle to abolish nuclear weapons. That is why the moral conviction must come first, the political negotiations second, and the technical means third, in moving mankind toward a hopeful future. The first and most difficult step is to convince people that movement is

possible, that we are not irremediably doomed, that our lives have a meaning and a purpose, that we can still choose to be masters of our fate.

Some day, perhaps, it will be natural for such writers to devote their first chapters to "humanity and morality rather than with weapons and politics," but at present this would probably mean only that their books wouldn't sell. So, to hold their audience, they consider the ground of human fears before they bring in humanity and morality. We must not condemn them for this, since they have good things to say. Only if the good things have an effect is there hope of reversing the order of subjects to the way it ought to be. The Buddha did the same. Human pain created the audience for Buddha's teaching, so, in proposing the Four Truths, he began with the reality of pain and misery, which had had the effect of producing some inquiring minds. Why, people were asking, must we endure all this? The Buddha had an answer, but it was involved in an understanding of the structure of the human psyche, so that he taught a to the moral psychology masses, the Dhammapada makes clear.

Since the Buddha unquestionably accomplished a change of heart in the millions of the Orient, why don't we just go back to his teachings and do the same for ourselves? The answer is, because we can't. Some kind of human mutation seems to have taken place in European history—and in America that makes independence of mind part of our makeup. Galileo's rule, to prefer observation and experience to the instruction of holy books is still The great movement known as with us. "modernism," combining a strong determination to be free of past belief with the pain and desperation of alienation, is a part of the fabric of our being. These two tendencies have led to the extraordinary preoccupation with technology, which in achievement depends on learning how things work, on tinkering, discovery, and invention. While the great past religions—Buddhism, Hinduism, Taoism, Sufi mysticism—touch our minds as well as our hearts, we try to fit them together with the most recent versions of the empirical psychology of the West, mixing the shallows of modern speculation with the metaphysical depths of ancient systems of moral psychology. The result has been a somewhat journalistic fashion in attempts at self-discovery. Missing has been over-arching conception of essential structure and an understanding of what growth is and where it leads.

What does it lead to? One answer would be that it leads to individuals like Henry David Thoreau, Leo Tolstoy, Mohandas Gandhi, and Simone Weil. Modern theorists of such development are very few—we think only of two: Lawrence Kohlberg, stages represent passage whose six spontaneous self-interest to action based entirely on principle, and Kenneth Keniston, who has studied the transition from adolescence to adult maturity. Since Kohlberg's ideas have been several times reviewed in these pages, we shall look at Keniston's analysis, which was clearly presented in an article on "Morality and Ethics" in the American Scholar for the Autumn of 1965.

One of its applications is to the issue of war. He begins by distinguishing between Morality and Ethics. Morality, he says, is the more or less inherited attitude toward right and wrong, with values growing out of the common beliefs of the time and the teachings of parents. Ethics, when pursued, provides a fresh and culturally independent basis for moral action. Ethics, he says, is "the individual's thought-out, reflective and generalized sense of good and evil, the desirable and the undesirable, as integrated into his sense of himself and his view of the world."

Moral codes tend to be specific and situational; but ethical principles are general and universal, seeking to provide guidelines for conduct in all possible situations. While morals tells us how to behave, ethics tells us what to aspire to. . . .

Morals come first in human life: anyone fortunate enough to have devoted parents who are minimally consistent in how they respond to him in childhood is likely to develop an ingrained sense of morals—a superego—rooted in his childish anticipation of his parents response to his behavior. The parents' presence is internalized, and with it a set of "do's" and "don'ts" based on parental precept and (more important) parental response and example. The most potent of these prescriptions inevitably relate to the current interpersonal experiences of the child, to face-to-face encounters between people who know each other—parents and

children, siblings and peers, boys and girls, teachers and students. The constituents of the child's moral sense are therefore situational and interpersonal; nor can it be otherwise, for when the bases of conscience are laid down, the child is virtually incapable of abstraction, generalization and conceptual thought.

What, then, is "growing up," and what is its effect on the moral sense? Dr. Keniston says:

In adolescence, however, a major change in morality becomes possible. Adolescence brings new powers of cognition and new feelings—a capacity for logico-deductive thought and an urge for self-consistency, an ability to locate oneself in time and a need for historical relatedness, a talent for self-regulation and a will to stand unaided. Thus some adolescents are impelled toward a re-examination of childhood morals which psychoanalysts call a "rebellion against the parental superego"—thereby underlining the youth's need to repudiate his parents' words and deeds. The other function of this re-examination is less often discussed: it permits the adolescent to make conscious the unconscious constituents of his childhood supergo and, by bringing them to light, to reject them or incorporate them into a developing sense of individual selfhood. In the process, there may develop the beginning of an ethical sense beyond morals a sense of the desirable and the undesirable that embraces and is supported by remnants of the childish conscience, but that transcends it in abstractness, historical realism, and consistency with other commitments and conceptions of the self.

This, then, is the "change of heart" that is part of the natural process of passing from childhood to adult life. Keniston is concerned with the parallel between this change in individuals and the similar transitions of entire cultures. Can cultures "grow up"? What assistance can be given them to do so, and how can we take part?

However, as Keniston emphasizes, the change of heart that is "normal" in adolescence may not take place:

All of this may happen, but often it does not. For many youths, there is little "rebellion" against the potential tyrannies of conscience, and therefore little emancipation from the childhood supergo. And for others—often those who are most vocal in their repudiations—rebellion ends in capitulation to a new alliance of a childish moral code with adult intolerance and fanaticism. But for at least a few, youth leads to the first development of a reflective ethical sense that may continue to deepen throughout life, to ethical aspirations that replace moral prescriptions and to a new kind of

morality that is a part of the self rather than a force alien to the self.

He then says something of the highest importance in relation to hoped-for changes of heart:

Morals, then, can be taught and transmitted with minimal loss from generation to generation. For this reason, the ethical attainments of one generation often degenerate into the moral homilies of the next. No matter how high their own ethical sense, parents can never simply bequeath it to their children. Children can only learn moral codes, and parents can only hope that their offspring will one day achieve for themselves a transmutation of morals to ethics that will betoken their emergence as individuated men and women. . . .

Neither culture contact nor social change guarantees the growth of ethics, any more than adolescence guarantees the development of ethical sense. The history of the world, although it is a tale of growing culture contact and accelerating social change, is by no means a history of the uninterrupted development of ethics. My point is rather that these historical conditions make the transition from morals to ethics possible, and that unless these challenges find a response in an emergent ethic, the results are likely to be a fanatic self-righteousness that seeks to destroy those who hold different moral values, and autocracy or murderous strife.

One might say that morality, which we certainly can't do without, is habit-forming, whereas ethics frees us from habit by always referring to principle.

Dr. Keniston believes that the pace of change in the modern world, wearing away at so many of our habits, may induce a state of mind ready for thinking about ethics in contrast with our morals, which have become obviously inadequate. He says that "no definite set of specific moral rules can ever hope to comprehend all of the dilemmas we meet in daily life." His discussion of the limitations of present-day "morality" is essential for grasping the meaning of our present confusion:

The fate of our complex society is fused to the fate of the entire world. And most important, we most desperately need guidelines not for simple face-to-face encounters with our friends, but for the incredibly complex confrontations of nations, institutions, and technologies upon which depends today the survival of life itself. Ours is a world where morals do not begin to meet our needs; yet it is also a world where too few men have developed ethical sense, and where an adequate ethic hardly yet exists. . . . I doubt that there has ever been a time when there were as many adequately moral men and women who treated their friends and neighbors

so relatively well. Yet moral codes, with their roots in the simple interpersonal situations of childhood, simply tell us nothing at all about the rights and wrongs of corporate price-fixing, genocide, misleading advertising or atomic warfare. The merely moral man, once he wanders from his own neighborhood, is left without a map—trying, as it were, to apply Newtonian laws to quantum phenomena.

This helps a lot in understanding acts of foreign policy which are based on the international morality of a hundred years ago. The rule of habit is too strong to permit an ethical view of national decision:

Witness the American bomber pilot who returned from dropping napalm on Vietnamese villagers with the comment, "I think we did good work today." "Good work"—cleaning out the garage, flying a routine mission, getting an "A" in math, executing the Final Solution. On Television he seemed a decent man with kindly wrinkles around his eyes, a moral man who loves his family, befriends his neighbors, lives uprightly and now serves his country.

This, in a way, illustrates the ghastly new potential of our age. As never before, a man need not be immoral, nor need he bear animosity toward his fellows, in order to be the effective instrument of their wanton destruction. No face-to-face encounter is needed—only the release of a switch. For all its horror, the encounter of the sadist and his victim is still a human encounter, and it is as old as mankind. What is new to our age is the growing possibility (and fact) that deeply moral men, who feel nothing at all about each other, may be the instruments of their mutual annihilation. When men no longer need confront each other as men, moral sense does not suffice to govern their dealings.

The urgent pressures of current history drive us to recognition of the truth in this judgment and may help to precipitate, the writer hopes, ethical insight, since we need it and cannot do without it, either. However, Dr. Keniston goes on:

Yet even those who feel the need for an ethical sense beyond morals are often at a loss for ethical solutions to today's problems. The great ethical systems of the past have largely deteriorated into moral platitudes; moreover, because they were primarily intended to govern interpersonal relations, they are inadequate to the non-interpersonal dilemmas of the twentieth century. The dizzying pace of technological and social change has led to a proliferation of man-made techniques and institutions far more rapid than our ability to devise ways

of considering them in ethical terms. Who, even a generation ago, could have anticipated the ethical dilemma of the architects and executors of Hiroshima? Perhaps ethical thought inevitably lags; perhaps it can only be the next generation that truly fathoms the problems of its forebears. And since ethical sense first begins to develop in adolescence, perhaps it is only youth who can think ethically about the problems for which their parents had no ethical answers.

Two facts persuade Dr. Keniston that we do not have to wait for the next generation for the beginnings of an ethical solution:

First, our capacity through folly or error to destroy all life on earth ties together men's fates as never before; this capacity makes obsolete all moral codes premised on concepts of purely national interest, national hegemony or national survival. And second, we are in the midst of what could be called a "cross-cultural implosion" whereby radical new techniques of communication (radio, television, films, communication satellites) enable men to understand each other across enormous barriers of language, faith and culture. This implosion of cultures makes realistic for the first time the age-old vision of a world culture, indeed it makes the attainment of that vision probable if only we can forestall holocaust so long. These two facts seem to me to make but one ethical aspiration adequate to our time: the aspiration to a genuine world community in which men, without losing their love of neighbor, parish and nation, also serve a higher ethical standard as citizens of the world.

What have we learned about the structure of the human psyche from this analysis? It seems that in us there are two standards of behavior. One is the comfortable morality of the time, the other a kind of transcendent vision struggling to manifest. It cannot be directed or "taught," but we can help to set it free, if we learn how.

REVIEW AMERICAN INDIAN WRITERS

ONE sets down Native American Renaissance (University of California Press, 1983, \$22.50) by Kenneth Lincoln with mixed emotion: one feels the archaic dignity of the American Indian, yet there is also much degradation and continuous The book is mainly about a group of pain. contemporary Indian writers, nearly all in their thirties, and their struggle to give authentic Indian voice to their feelings; but long reaches of background necessarily come into the picture. Of the writers named, we are familiar only with the work of Scott Momaday, Kiowa Indian and Pulitzer Prize for Fiction winner, teacher of English literature at Stanford University. His The Way to Rainy Mountain, the story of the Kiowas, and Momaday's story, too, is told in several ways, all of them so well that these contrapuntal themes become one in the memory of the reader. Another major current in Lincoln's book comes from Black Elk Speaks, John Neihardt's report of the words of the Lakota sage who was born in 1863. Black Elk was not mutilated by the pain he bore, while some of the writers reviewed by Lincoln seem to celebrate it, bringing guilty shame to the white reader. Lincoln remarks of a novel by one of the writers:

And still a reader questions why such "realism." Drawn from an American frontier fascination with regenerative violence, this suicidal culture hero perpetrates despair's sorry end, along with companion stereotypes of the bloodthirsty savage, noble redskin, cigar-store stoic, and vanishing American in the wilderness Harlems of Native America. An old American myth, repeatedly fictionalized, draws reality once more; a violent end to a life of trouble, death a "place" to go "home" to a lost mother.

One longs for the distance history imparts to such terrible transitions, since we know that the fabric of every national life has woven into it the threads of peoples conquered, subdued, and sometimes erased from memory. Reading about them, we do not feel what they felt in the time of their destruction, whether rapid or slow. From

this book we can imagine what they must have suffered, what it means to be a member of a defeated culture.

Yet there is another aspect of such difficult transitions, for which Black Elk and some other tribal elders stand. In the days of decline, when even breathing is painful and soon may be no more, such humans feel the need to transmit what can no longer be practiced by the tribe. This feeling came over Black Elk in 1931, and it seemed to him that Neihardt was worthy to be the receiver of what he had to tell. The same thing happened in Africa in 1946 when Ogotommeli, a blind (like Black Elk) Dogon sage summoned a French ethnologist and talked for thirty-three days, expounding the Dogon metaphysics and religion; and there were other and similar transmissions in Africa recording four different systems of African peoples, all with their differences but all basically agreeing with one another, as Janheinz Jahn says in his book about them, Muntu (Grove Press, 1961), It is the obligation of scholars and the inspiration of poets to identify as much as they can with the literary and moral genius of dying and lost but found cultures of the past, giving them what continuity is possible in being passed through the filter of literacy and translation. Winckelmann was the recreator of the Hellenic spirit for the Germans, and Byron, Shelley, and Keats, each with his particular genius, tried to give a Greek content to English civilization.

In *Native American Renaissance* Kenneth Lincoln makes his contribution. While white, he grew up "on the northern plains" among the Lakota and has a natural feeling for this labor of love. (He now teaches at the University of California in Los Angeles.) Writing of Black Elk and Scott Momaday, he says:

The Lakota and Kiowa, across the northern and southern plains, were warlords in powerful alliances with other tribes. They first encountered each other during the Kiowa migration along the prairies east of the Rockies, described in *The Way to Rainy Mountain* as "a long shadow on the sea of grasses." These

buffalo-hunting, sundancing, vision-questing peoples maintained territorial imperative over the Great Plains from the eighteenth into the nineteenth century. Mounted on horses, they saw themselves as centaurs. Black Elk's mysticism, as a visionary warrior, secularizes into Momaday's naturalism, as a contemporary artist.

A plains holy man—healer, visionary, teacher, artist—is inspired by a sacred, natural world through dreams. He converses with the energies of plants and animals and the earth itself, and the core of his identity is shaped by vision questing. The holy man appears variously as shaman or priest, healer or witch doctor, but this tribal role is to bind the people's spiritual needs with the things of this world, as an umbilical cord ties a child to a parent. The medicine man releases the spirits in things to move through this world; in this integrated reality there is no split between ideas and things. Religion and culture fuse with medicine and morality, art and history. The plains people respect this healer as a wise man, a seer of heart and knowledge. He moves freely among the best and worst of the tribe, humbled and empowered by the natural spirits of his vision, carrying a medicine bundle with a sacred pipe. He doctors and blesses, counsels and laments, interprets signs and keeps alive stories, songs, and visions essential to the Whether traditional or iconoclastic, he is distinguished as someone of power and vision, chosen by the spirits to heal.

Appropriately, Black Elk becomes spokesman for all American Indians. They are nearly all far from being like him, yet he represents their better selves, the higher longing that they have in them. And in a time of transmission, this quality is what is worthy of being carried forward. impersonality is of a piece with all the great Saviors of the past. "He assumes," Lincoln says, "no control or credit for what powers move through him, rather he is a force of wind and spirit, sun and moon." Reality, he teaches, is circular, with the medicine pipe at the core of the great circle. The "spirit world," the true world, is the "sacred hoop" or horizon that "encompasses all tribes under the sky and within the earth." Lincoln quotes from *Black Elk Speaks*:

You have noticed that everything tries to be round. In the old days when we were a strong and happy people, all our power came to us from the

sacred hoop of the nation and so long as the hoop was unbroken, the people flourished. The flowering tree was the living center of the hoop, and the circle of the four quarters nourished it. The east gave peace and light, the south gave warmth, the west gave rain, and the north with its cold and mighty wind gave strength and endurance. This knowledge came to us from the outer world with our religion. Everything the Power of the World does is done in a circle. The sky is round, and I have heard that the earth is round like a ball, and so are all the stars. The wind, in its greatest power, whirls. Birds make their nests in circles, for theirs is the same religion as ours. The sun comes forth and goes down again in a circle. The moon does the same, and both are round. Even the seasons form a great circle in their changing, and always come back again to where they were. The life of a man is a circle from childhood to childhood, and so it is in everything where power moves. Our tepees were round like the nests of birds, and these were always set in a circle, the nation's hoop, a nest of many nests, where the Great Spirit meant for us to hatch our children.

In answer to the question, Who are the Indian writers to whom his book is devoted? Lincoln says:

The new Indian poets are children of the old ways, students of historical transitions, teachers of contemporary survivals. In the last two decades, seminal writing has come from young Native Americans as they emerge out of tribal settings, go to American schools and study formal literatures, then go back to their own people, in country or city to write personal versions of native experiences. The multiples and mixtures of Indian life are countless.

Lincoln's account of present-day Indians will help to explain why:

The twists of history today place the majority of American Indians off the reservation. Only some thirty-eight per cent of perhaps a million and a quarter Indians now live on tribal lands. This twice displaced majority of Indians, removed to reservations a century ago and subsequently relocated by the government (or *re*-relocated), is for the most part composed of mixed-blood peoples, dark-to-light, who adapt to the American mainstream and exist biculturally, at no small cost and with sharp self-questioning. California, housing a migrant plurality from everywhere in the world, has the highest Indian population today, officially counted in the 1980 census at 201,311. Most of these transplanted

peoples have been federally removed from other states, Navajos from Arizona, Pueblos from New Mexico, Lakota from the upper Great Plains Apache from the lower. Oklahoma, or "red-earth-people" land, ranks second with 169,000, originally the 1830s Indian Territory west of the Mississippi. Arizona is third in Indian population with 152,000, mostly Navajo and Hopi; New Mexico fourth with two Apache and nineteen Pueblo cultures totaling 101,000; and South Dakota fifth with the Lakota.

Many of the Indians of today are only part Indian. Wendy Rose, whose father was a Hopi, her mother with Indian and Euroamerican bloodlines, writes "as a marginal woman on the lines between races, cultures, and languages." Paula Allen, also of mixed blood, belongs to a Pueblo and writes about the "estranged half-breed":

... a white world that rejects him, an Indian world that abandons him. . . . To be sure, American Indians are not the only people who suffer alienation in the modern world, but they are among the most beleaguered, the most wounded by it. For, like the protagonists in their novels and like the speakers in their poems, they live in a land that is no longer their home, among strangers who determine, senselessly, the patterns of their lives, and they are, for the most part, powerless to do much more than determine the cause of their deaths.

Yet from all this fine writers have emerged—writers who have outgrown without losing their pain.

COMMENTARY PREREQUISITES OF ETHICAL DECISION

IN this week's lead, the quotations from Kenneth Keniston's American Scholar article seem to have unusual importance. In speaking of the transition from ordinary "morality" to ethical thinking he provides an account of the structural change that needs to take place if the modern world is to avert the immeasurable ruin of nuclear war. To be satisfied with inherited moral attitudes, as he points out, is to make war almost a certainty. Our powers have reached a stage where a more fundamental understanding of right behavior has become essential. We have, in short, to grow up. For unless we grow up, people who think of themselves as "good" and "moral" will sooner or later be led to destroy other people who feel the same way. The "moral sense." Keniston says. "does not suffice to govern their feelings."

A dawning ethical perception would lead humans to question their basic motivations, the fundamental patterns of their lives, and in order to do this large philosophical questions need to be answered, at least tentatively. These are questions about the nature of being human, the possible *role* of the human species on earth, and about other matters which our preoccupation with economics and acquisition have brushed aside for about two centuries. We need to realize that raising these questions is not a "change of subject" but a practical necessity if there is to be a "change of heart." The passage to maturity from our cultural adolescence requires it.

Dr. Keniston has described what is involved in ethical awakening in general terms. It remains for educators (that is, everyone concerned with the future of the human race) to give concentrated attention to the modes of influence that will contribute to the awakening in individuals. The people to be reached, for example, are those listed by Robert L. Holmes in this week's Frontiers (see page 7).

Arthur Morgan, for one (see page 6), was a man who was reached, although apparently by himself, and not by some well-intentioned communicator, when he resolved "never to do a day's work for pay where the normal and natural results of that day's work would not be of human value." Practicing ethical thinking came naturally to Morgan, but for the rest of us it is by means so effortless. Yet thoughtful consideration of the few who are esteemed ethical geniuses, throughout history, would no doubt help.

CHILDREN

... and Ourselves

TOMORROW'S EDUCATION

ON a table in our office is a stack of magazines, reprints, torn-out pages, clippings, maybe a form letter or two, waiting for attention. Usually the stack is three or four inches high, but it sometimes grows to almost eight. Going through this pile is a regular necessity. Even after an item has been inspected two or three times it may be left in the pile. You don't always see the value of an article by a quick reading, and if you file it you'll never For words on paper, filing is see it again. practically a sentence of death, partly because indexing is such an inadequate way of remembering. We once attempted an elaborate subject index for materials accumulated by the MANAS library, but finally gave up because the headings got too abstract and too numerous. One, believe it or not, was "Reality," and after looking over its contents we decided that only by luck would they ever get used. So we index and file by proper names, titles, publications, and authors and writers. This seems to work as well as any system can—not, that is, very well.

This week, wondering what to put together for "Children," we went through the stack. One result was a sense of encouragement from all the good things getting published in the "saving remnant" press. Did you know, for example, that Lech Walesa is a firm believer in nonviolence, and that he has been able to make it the fundamental method of Solidarity? We didn't, and were glad to read Jacques Ellul's long article about his achievement in a back issue of Katallagete (Box 2307 College Station, Berea, Kentucky 40404) for the Summer of 1989. The movement in Poland is vital because it is decentralized, made up of autonomous groups of workers throughout the country, and based on self-reliance and individual responsibility. Ellul, a careful and responsible writer, seems to have the essential facts and to make a clear report.

Gardeners may want to take note of an article in the Spring 1984 *New Alchemy* (237 Hatchville Road, East Falmouth, Mass. 02536). It names and describes common insect garden pests, tells the damage they do and the measures that may be taken for their control or elimination. A number of remedies are suggested. Often plant traps are recommended along with predator insects as biological controls. Companion plants may help, and certain non-crop vegetation can increase the population of beneficial insects. Extensive bibliography is provided. Researchers at the New Alchemy farm have repeatedly demonstrated successful non-chemical pest control to visitors.

A story on crop varieties (mostly wheat) in the Winter 1984 *Land Report* (Route 3, Salina, Kans. 67401) by Walter Pickett makes informative contrast with press reports of miraculous hybrids. "A new disease-resistant variety," he says, after a few years "has the disease that it has been resistant to." "A new variety, resistant to the same disease, is developed, and in a few years it also has the disease." He tells why:

The first year that a variety is released, it appears resistant to many diseases, just as it did in the laboratory. Usually it has a newly discovered gene for resistance to a given disease. But in that first year, perhaps a mutant spore lands on the new variety, and the new resistance gene can't stop the mutant. The mutant will multiply, but in this year it hurts only the one plant it is on. No one notices.

Farmers who grow the new variety brag about how well their wheat is doing, and next year more farmers grow it. In the meantime, the original mutant spore has multiplied itself into a few thousand or more, but who worries about a few thousand sick wheat plants in Kansas? That's not even one sick plant per acre. The fields look healthy as ever.

In the third year, still more farmers grow the new variety. By now there are millions of the mutant disease spores. A few farmers may notice the disease is back in their fields, but they'll say that the new variety is deteriorating. Yet the variety hasn't changed. Indeed, the whole problem is that the variety hasn't changed, but the pathogen has.

In this way, plant breeders have bred pathogens since the beginning of plant breeding as a science. It

has been a constant job. It has taken an average of fifteen years to produce a new resistant crop variety. The resistance has usually lasted only about five years per new gene.

Why do some crops remain disease-resistant while others don't? Turkey Red Wheat has had some problems, but "after a hundred years this variety is as good as ever." But Turkey Red, Pickett says, is not a "pure line" variety. It has a mix of many lines which, altogether, make for healthy survival. It can "co-exist with a population of pathogens." It has "a selfcorrecting, dynamic equilibrium that can last indefinitely. Newton and other pure lines of wheat cannot do this." He also points out that the wild prairie grasses have held their own against diseases for centuries, and asks. What are they doing right? Answering this question is a major area of research at the Land Institute, for Wes Jackson and his colleagues. They run experiments on the development of a food-bearing prairie perennial that is rich in protein and diseaseresistant. Such a grain crop would preserve the land from erosion because of its matted root system that holds the soil, while, being a perennial, it would require much less plowing. "The Land Institute," Pickett says, "is working toward crops that may last five or more years from one planting." Prairie plants are the natural instructors for agriculturalists. He adds: "There are surely other things to be learned from wild populations."

There are people learning in this way all over the world—a few. In the July-August *Rain* (270 NW Irving, Portland, Ore. 97210) Alfred Quarto tells about his visit to the Japanese island of Shikoku, near Matsuyama Bay. On this island an elderly Japanese, Masanobu Fukuoka, has a farm consisting of one and a quarter acres of rice fields and twelve and a half acres of mandarin orange orchards. He began life as a microbiologist, became a specialist in plant diseases, and then, at twenty-five, left his job in Yokohama to return to his native village. Why did he do this? Because, one day, in an unused and unplowed field, he saw healthy rice seedlings sprouting up among the

weeds. He learned from nature to stop flooding his rice fields and sowing in the spring, and did his planting in the fall, as nature does. Instead of plowing he used a weed-discouraging mulch, determined to interfere as little as possible with natural processes. Quarto says:

Through these techniques Fukuoka produced high yields of healthy crops without having to resort to chemicals. His crops have fewer pest problems or diseases, and their quality in food value is much improved over chemically treated crops. For Fukuoka's methods to work, farmers must devote years to practical learning. They must get to know their land well-its soil and climate and its pecularities. The rewards of such persistence are great, however; not only for superior crops and richer soils, but also for the overall progress in development of self that naturally follows the implementation of such methods. . . . He believes that it is imperative for his people to replace their fast-paced, consumer lifestyle with one of slower pace and one that sustains, rather than depletes, the land. Yet his 40 years of laboring on the land had not swayed them, and the earth and life itself in Japan, as elsewhere in the world, are misused and wasted.

This is a source of great sadness to Fukuoka. Meanwhile he does what he can, teaching a handful of students who want to learn. His book, The One-Straw Revolution (Rodale Press, 1978). with a preface by Wendell Berry, has become well known and widely quoted, and his influence is slowly spreading. His work was a central inspiration to Bill Mollison, founder of the Permaculture movement. In the Rain article Quarto tells how Fukuoka discovered the cause of the pine blight that is ravaging the pine forests throughout Japan. After years he found that healthy trees had a protective fungus on their root systems while in the dying trees it was absent or diminished.

Fukuoka placed the blame for this current imbalance on modern technology and its attendant pollution. He believed that increasing air pollution had caused a small but significant increase in atmospheric temperatures, which in turn led to a change in the temperature of the soil. This raising of soil temperature had, in turn, destroyed the once

healthy balance between the pine trees' roots and the symbiotic fungus that protected those roots.

His diagnosis has been ignored by Japanese officials and the devastation of the forests continues—a cost of modern progress. Quarto concludes:

But here is a man, whom I would call a sage, who has built another sort of life from the land, who has shown us one way that we can live upon the land and nourish it, and in turn, be nourished by it.

Such teachers are not numerous, yet they exist, and there are around the world strong efforts to seek them out and learn from them. That is why, at the beginning, we called the papers in which these efforts are reported the "saving remnant" press. It is here that lie the seeds of tomorrow's education.

FRONTIERS The Only Way

THE way people think—or fail to think—about the senselessness of modern war is increasingly the subject of present-day intellectual inquiry. A good example is Freeman Dyson's recent book, *Weapons and Hope*, providing a splendid exercise for the maturing mind. One value of this book is the capacity of the author to get inside the minds of people of widely differing conviction and to show that their reasoning power, which may be considerable, is inevitably controlled by their basic assumptions. Criticism then becomes an examination of assumptions rather then a test of reasoning skill.

How are basic assumptions formed? This, quite evidently, is the important question.

Yet it is seldom taken up with any seriousness. Instead, writers present their own assumptions, dressed with the cogency of well-developed reasoning, as though final truth could be reached in this way. One cannot say that they are wrong in this, but only that their persuasiveness does not seem widely effective. They offer from history the evidence of the senselessness of war in terms of actual cause and effect. These proofs of the folly of war are intellectually convincing, once you start thinking the way the writer thinks, but the fact is that not very many people think that way.

A major difficulty lies in the fact that the writer is likely to say that "we" did thus and so, hoping for a desired result, when even simple common sense would point to an opposite effect. Yet the same common sense, applied in another way, would show that "we" did nothing of the sort. At the time of the decision to act "we" were nearly all of us concerned with quite other matters—how to get a better job, whether or not to manufacture something the defense contractors might buy, or whether going into politics might be a good thing to do. The "we" who are charged with making history so poorly and unintelligently

do not together make a coherent, reflective, national "self" that can be held directly responsible for national decision. In relation to national affairs, most of us drift in the direction that habit combined with impulse and short-term interest indicates. The alternatives presented by the organs of mass opinion are almost entirely vulgarizations of over-simplified rationalizations, and the purveyors of this "information" are themselves as much victims of the process as the rest of us. The beautiful reasoning of the intellectuals who see how many things work affects hardly anyone but other intellectuals.

Well, what else might be done? There have been a few rare individuals who worked toward an answer to this question—Arthur Morgan, for one, who devoted his life to study of the formation of human character, which is a way of trying to understand how one's basic assumptions are formed. But that, unfortunately, would seem a change of subject to most people who discuss war and peace.

Yet the best considerations of what makes for war at least take us to the threshold of the mystery of character and the roots of decision and habit formation. A paper sent to us by a thoughtful reader—an article by Robert L. Holmes in the *Harvard Magazine* for March-April, 1983—is an illustration. A teacher of philosophy at Rochester University, Mr. Holmes rehearses all the major criticisms of war as a national policy, with particular attention to the folly and irrationality of nuclear war. He examines the weaknesses of the reasons given for going to war, then says:

The need now is to supersede this whole approach. The very security long thought to dictate the need for armaments now dictates that we surpass the war system.

People say, treaties have failed to prevent wars so let us be done with treaties; they don't say, war has failed to prevent wars so let us be done with war. Yet that is what they must say if they are to be serious about war's abolition.

And to be done with war means being done with the war system. For that system has a force that will

pull apart the best intentioned of agreements. . . . The problem isn't so much a lack of desire for peace as it is a commitment to institutions that make peace impossible.

This is indeed a change of subject—a move into the area of criticism of institutions which make for war. It means also a study of the human tendencies which give those institutions their power. For example, they would have little or no power—perhaps would not even exist—if enough people had in their youth adopted the principle which became guide to Arthur Morgan in his practical life. In a fragment of autobiography (*Finding His World* by Lucy Griscom Morgan, Kahoe & Co., 1928), Morgan wrote:

When starting for the West at nineteen, I determined never to do a day's work for pay where the normal and natural results of that day's work would not be of human value, and I never quite starved on that program. I realized that to live wisely by such a standard, one's ideas of values must include the whole range of legitimate human needs, both the practical and material and the so-called "impractical" hungers of human nature. My failures have been due to living not closely enough in accordance with my convictions, and in not using ordinary common sense in applying them in specific cases. Good will is only potent when associated with intelligence.

It is worth trying to imagine what sort of institutions would develop among people who determined to think as Morgan thought. What have we, instead? Mr. Holmes says:

Consider the United States. Millions earn their livelihood in defense industries; forty per cent of scientists and engineers work at military-related jobs; colleges train military officers and appoint men in uniform to professorships to instruct them; corporations seat retired military officers on their boards of directors; Congress regularly votes billions for military expenditures; and the highest officials, to a person, accept violence as a means of resolving international disputes. In countless ways nonmilitary institutions and practices serve military ends—as though Adam Smith's invisible hand were at work to maximize human destructiveness. When this happens a society becomes hostage to military values as surely, if less conspicuously, as by military takeover. There remain to be sure, those who wear uniforms and those who don't. But they simply serve

the war system in different ways. Little wonder then that violence erupts when the nations of the world, virtually all of which are committed in one degree or another to the perpetuation of the war system, confront one another in the ring of international conflict. To expect the signing of documents outlawing war to change that is naive.

This state of affairs can be changed only by reconstituting societies. And we must begin with our own. . . . Not least of all we need to convert our economy to peaceful ends.

Morgan provided a personal example of where to begin.

Mr. Holmes ends his article with a forthright appeal for non-violence to take the place of war in national affairs, recommending study of Gandhi's works and example. "Non-violence," he says," may not only be a better way of getting along in the world; it may be the only way."