The functioning of the college English department during a period of rapid societal change is important. English programs can and have been interrupted by student activists. Such crises in formal education are small in comparison with the overriding issues of whether or not man can survive as a species past the turn of the next century and of what the quality of his existence will be if he does manage to perpetuate himself. At the current growth rate, the earth's population will double in 37 years. Coupled to this problem is that of caring for the young. Despite the recent creation of a "Green Revolution," by which production of wheat, rice, and maize has increased phenomenally in India, economic problems persist. The consequences of urbanization are manifold. Aggravating the financial crises of the major cities is the increase of violence it fosters and an intensified pollution of the environment. If technological man is to survive, he cannot for much longer destroy links in the chain of life upon which he, too, is ultimately dependent. Even if pollutants do not kill man, weaponry may. Currently, two and a half times as much is being spent on military equipment and personnel as is collected in taxes by all units of local government. Behavior must change and priorities be renewed. In the process of reconstructing national goals and of creating a moral society, English departments and their chairmen can play a crucial role. (CK)
CHANGE, PRIORITIES, AND THE COLLEGE ENGLISH DEPARTMENT

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The temptation for one invited to speak to colleagues about the functioning of the college English department during a period of rapid societal change is to comply quite rigidly with the terms of the invitation and to speak about such matters as the mildly benign influence on the collegiate curriculum of the Anglo-American Seminar at Dartmouth; present pressures to make professors accountable, both monetarily and professionally, for the success of their teaching; the ascendancy of behavioral over humanistic psychology in matters of pedagogy, particularly in the two-year colleges, with an attendant trivialization of English programs as they are rendered into quantifiable behavioral objectives; the growth of multi-elective programs in freshman English, belated recognition perhaps both of contemporary proliferation of information—if not knowledge—via books, films, records, and television, and of egalitarian sentiments for a participatory democracy that includes students.

I am sure that I could spin out my time this morning on any one of the above matters without much undue padding and without talking about either the financial crisis of American education, a matter on which you are already well versed, or which of the many schools of literary criticism now seems ascendant in academia. But the truth of the matter is that I do not want to talk about current programs of departments of English, principally because most programs, despite good men's attempts to make them more responsive to 20th Century America, seem to me to be still far too provincial, too narrowly conceived, too tunnel-visioned for our times.

If one thing should have been made clear to us in the decade past, it is that the English teacher and the English program operate, as William
Jenkins observed in *College English*, May 1971, "in a political-social-economic-educational arena." English programs can and have been temporarily stopped or devitalized by students demanding greater voice in the governance of their institutions, by minority students demanding the creation and control of special programs of studies, by continued U.S. warfare in Viet Nam and by U.S. invasions of Cambodia and Laos, by the slaying of students at Kent State and Jackson State, by on-campus recruiting activities of the military and of corporations contributing to military enterprises, and by student celebrations of Earth Day; further, the growth of English programs can and may be halted and the nature and extent of professional responsibilities redefined by state and national legislators concerned about such matters as the rising costs of education, the feckless control of dissident students, and the present discordant fit between college degrees and the needs of the marketplace.

Even these crises in formal education, as severe as their effects may appear on English programs, are of no great moment when compared with the overriding issues of whether or not man can survive as a species much past the turn of the next century, and of what the quality of his existence will be if he does manage to perpetuate himself.

Here I hesitate, for as I learned with chagrin long ago in my undergraduate days, I am not Faust nor was meant to be; to do justice to the severity of man's present plight and to forecast credibly his future require an omniscience and a power of divination well beyond me. Nevertheless, as citizen, parent, and teacher of English, I cannot ignore what information I have. So that you may understand why I am not sanguine about what lies ahead for mankind, allow me to burden you with some of what I have come late to know.
From 8,000 B.C. to 1650 A.D., world population grew at a rate of 50 percent each thousand years; but from 1650 to 1965, the rate of millennial growth was 2,000 percent or 40 times greater in the modern age than in the premodern.¹ If the present 1.9 rate of population growth continues, the population of the earth will double in thirty-seven years; if the rate were to continue until 2070 A.D., world population would be twenty-five billion. Even if the goal of those committed to zero population growth is soon realized, the numbers will continue to mount for some time: Robert McNamara, speaking last year at the annual meeting of the World Bank, observed,

If, for instance, by the year 2,000, the developed countries were to reach the point at which couples only replaced themselves, and the developing countries were to reach that point by the year 2050—and both those achievements appear unlikely—the world's present population of 3.5 billion would not become stationary until 150 years from now in 2120, and would then stand at 15 billion.²

The rate of population growth in developing countries, in which more than 50 percent of the total world population live in constant poverty, is substantially higher than it is in the industrialized nations: Costa Rica, with a 3.8 growth rate, is expected to double its population in 18 years; the Philippines in 20 years; Pakistan in 21 years; India, Turkey, and Nigeria in 28 years. By comparison, if their rate of population growth remains stable, Japan will double population in 63 years; the USSR, United States, and France in 70 years; Poland and Sweden in 88 years; Italy in 100 years; and the United Kingdom in 117 years.³

Coupled to the problem of expanding population is the problem of caring for the young. Thirty-seven percent of the world's population and 30 percent of the United States' population are under fifteen years of age, a mass population dependent upon others for food, clothing, housing, transportation, educational and recreational facilities, hospitals, water, and sanitation systems.⁴ Exac-
erobating the problem is that many of the dependent young are capable of reproducing and of creating thereby still another generation of dependents. To indicate the global seriousness of the problem, let me cite one example from this country, a nation with a low birth rate. On December 28 of last year, the New York Times reported that in the United States, the rate of illegitimate births to teen-age mothers has remained fairly constant since 1957 at approximately 16.5 per thousand. But the actual number of such births is increasing. In 1960, there were 91,700. By 1965, the figure had risen to 129,000. The total for 1970 is expected to reach 180,000.

Despite the recent creation of a "Green Revolution" by which production of wheat, rice, and maize has increased phenomenally in India, Pakistan, and the Philippines in the last four years, economic problems persist, for the hungry masses lack funds to purchase food; further, all cereals are deficient in one or more amino acids essential for normal growth of the body, including that of the mind.

In his Laureate address, Dr. Norman E. Borlaug, winner of the Nobel Peace Prize in 1970 for research leading to the development of dwarf and disease-resistant strains of cereals, commented as follows on the relationship between the Green Revolution, which he helped father, and population growth:

The Green Revolution has won a temporary success in man's war against hunger and deprivation; it has given man a breathing space. If fully implemented, the Revolution can provide sufficient food for sustenance during the next three decades. But the frightening power of human reproduction must also be curbed; otherwise the success of the Green Revolution will be ephemeral only....

Currently, with each second, or tick of the clock, about 2.2 additional people are added to the world population. The rhythm of increase will accelerate to 2.7, 3.3 and 4.0 for each tick of the clock by 1980, 1990, and 2000, respectively, unless man becomes more realistic and preoccupied about this impending doom. The tick-tock of the clock will continually grow louder and more menacing each decade. Where will it all end?
In the developed nations, concommitant with industrialization has been the steady growth of urbanization. As late as 1790, the United States had only twenty-four urban places, containing 5 percent of the nation's population. By 1950, urban places numbered 4,700 and were inhabited by 96 million persons, approximately 64 percent of the population. For 1960 these figures had swollen to 125 million persons, almost 70 percent of the population, living in 6,000 urban places, and of these 70 percent, 64.5 percent lived in 212 standard metropolitan statistical areas. Herman Kahn and Anthony Wiener anticipate that by the year 2000 three gargantuan "megalopolises" will contain roughly one-half of the total U.S. population, one megalopolis extending between Boston and Washington, D. C., another stretching from Chicago to Pittsburg and possibly north to Toronto, and the last reaching from San Francisco to San Diego.

The consequences of urbanization are manifold. As the United States shifted from an agrarian society to an industrialized metropolitan society, it failed to provide a suitable tax base by which cities could provide services to their rapidly growing populations. Property taxes, appropriate for the needs of 19th Century rural and small-town America, can no longer generate sufficient revenue for the needed services of a society in which seventy percent of the population live on less than ten percent of the land. The only sound tax base today is one related to the amount of income an individual generates. Such a base is provided by the graduated income tax levied by the federal government. To illustrate dramatically how the growth of urbanization simultaneously reveals the ineptitude of the property tax and the soundness of the progressive income tax in a post-agrarian society, Edward Higbee points out in A Question of Priorities that as late as 1932, cities received fifty cents of the tax dollar; states, twenty cents; and the Federal government, thirty cents. By 1969 cities were receiving seventeen cents; states, eighteen cents; and the Federal government sixty-five cents.
Aggravating the financial crises of major cities is the fact that the larger they become, the more it costs per citizen to provide municipal services. An article last month in The New Republic reported on some work illuminating this problem that was recently completed by Kenneth E. F. Watt, University of California at Davis. Watt, a zoologist who terms himself a "systems ecologist," has worked with a number of colleagues for the past eight years to design mathematical models of ecosystems for computers to analyze. According to the article, Watt

...maintains that municipalities of 100,000 to 299,000 spend $14.60 per person on police. Those of 300,000 to 490,000 spend $18.33, and those of 500,000 to 1,000,000 spend $21.88. New York City spends $39.83. For hospitalization, cities in the first two categories spend $5.00 to $8.00 per person; cities over 500,000 spend $12.54, while New York spends $55.19.

While city dwellers have little or no say over the dispersal of the Federal portion of the tax dollar—no citizens to date have managed to vote us out of Viet Nam or out of our contracts with Lockheed— they have managed at the polls to monitor closely local tax expenditures. The consequences for education have become increasingly disastrous. In the first quarter of 1971, for example, voters rejected over half of 248 school bond proposals, approving $148 million of the $455 million proposed. As tax levies and bond proposals have suffered defeat, some districts, like Philadelphia, have been forced to issue script to teachers, others have opened schools late and closed them early, others have cut back administrative services and increased teaching loads. But these problems are familiar to you.

Still another problem of urbanization is the increase of violence it fosters. Watt found that as the population of a city increases, so does the number of crimes per 100,000 citizens. "When a town grows from about 15,000 to over 250,000, its assault rate would likely increase 4.4 times, the robbery rate 7.5 times, rape 3.8 times, murder 2.8 times."
Attendant also with urbanization and industrialization has been the steady migration of poor Southern blacks into the ghettos of Northern cities, a migration that has been continuous for three decades and which could well continue and even increase in the next decade, according to analysts for the Census Bureau. Often requiring welfare assistance, these migrants place an additional tax burden on the city, whose white-collar workers often commute from surrounding suburbs that deprive the urban center of taxes and entrap the impoverished. If present trends continue, talk of integration will be increasingly fatuous, for nearly half of the nation's black population is now living in 50 cities, with a third of the total concentrated in 15 cities, according to figures released by the Census Bureau on May 19 of this year. Indisputably, we are becoming a separated society. It takes no clairvoyance to realize that unless the leadership of this nation gets as serious about eliminating racism as it has been about pursuing such less worthy goals as exploring the moon and eliminating the Viet Cong, we will soon confront monstrous political, economic, educational, and cultural problems, with violence and bloodshed the predictable handmaidens of attempts to resolve them.

One additional consequence of urbanization and industrialization in all developed countries has been an intensified pollution of the environment, a consequence which threatens in time to eliminate man, its progenitor. The United States, with only 5.7 percent of the world's population, is presently consuming 40-60 percent of the annual production of the earth's resources. Depending upon which ecologist one is currently reading, estimates are that the average citizen of this nation is anywhere from 25 to 100 times more destructive of his environment than is the average citizen of India. Yearly we spew into the biosphere 172,000,000 tons of smoke and fumes, and we junk into the environment 7 million cars, 100 million tires, 20 million tons of paper, 48
billion cans, and 26 billion bottles.\textsuperscript{13} On October 17, 1970, the Interior Department added twenty-two species to its list of species facing extinction, a list that consequently stood at 101--14 types of mammals, 50 birds, 7 reptiles and amphibians, and 30 species of fish. The added species were threatened mainly by pollution.\textsuperscript{14} The International Union for the Conservation of Nature and Natural Resources now lists for the planet 835 "endangered species and subspecies," most of them nearing extinction because humans have been either wantonly slaying them or polluting their habitats.\textsuperscript{15} Last September, Jacques Costeau sadly observed,

\begin{quote}
People do not realize that all pollution ends up in the seas. The earth is less polluted. It is washed by the rain which carries everything into the oceans, where life has diminished 40 percent in 20 years. Fish disappear. Flora too.\textsuperscript{16}
\end{quote}

Clearly, if technological man is to survive, he cannot for much longer arrogantly destroy links in the chain of life upon which he, too, is ultimately dependent.

On this point (and in what can only be termed funereal prose), Wayne Davis, a teacher in the school of biological sciences at the University of Kentucky, wrote last year in \textit{The New Republic},

\begin{quote}
If thermonuclear war or disease do not control our population, toxic products of our civilization will. With our overpopulated world, rising industrialization and modern agriculture, we are releasing into the environment ever increasing quantities of hundreds of toxic substances, such as lead, arsenic, mercury, carbon monoxide, oxides of sulphur and nitrogen, pesticides, herbicides, and radioactive wastes....

Modern biology teaches us that...a substance that's toxic to one organism is toxic to others; only the degree of sensitivity varies. Therefore, when we realize the concentrations of DDT in our environment are now high enough to have set the stage for extinction of the brown pelican, bald eagle, peregrine falcon, and other birds, it should be plain that the ecosystem upon which man's survival depends is doomed. These birds are equivalent to the canaries taken down into the coal mines to test for poisonous gas.\textsuperscript{17}
\end{quote}
Even if our pollutants do not kill us, our weaponry may. Since World War II we have expended over one trillion, 100-billion dollars on national defense, an amount exceeding the value of all business and residential structures in the United States, and we still are not safe by Pentagon standards.\(^\text{18}\) The estimated budget for national defense for fiscal 1972 is $77.5 billion, not including military pay increases that will be accounted for in another budget category.\(^\text{19}\) Last year, defense spending totaled $77.8 billion, while the total amount human beings spent on means of eliminating one another totaled $204 billion, "as much," according to Time, "as the income produced in a year by the 1.8 billion people in the poorer half of the world's population."\(^\text{20}\) Despite nuclear stockpiles now vast enough to blast every person in the world with the equivalent of 15 tons of TNT, 200 pounds for every pound of human flesh, the arms race persists.\(^\text{21}\) And, as CBS has recently learned, tangling with the powers of the Pentagon is physically, financially, and psychologically debilitative.


The system of military production and distribution managed by the Department of Defense (DOD) is the largest planned economy outside the Soviet Union. Its property—plant and equipment, land and inventories of war commodities—amounts to some $202 billion, and about 10 percent of the assets of the entire American economy. It owns 39 million acres of land; rules a population of 4.7 million direct employees or soldiers; and spends over $80 billion a year. This makes it richer than any small nation in the world, and of course incomparably more powerful....

Merely by way of indicating its size we might note that a peripheral activity, the Post exchange ("PX")
system, is the third largest distribution network in the country (just after Sears and the A & P) and that the construction of housing facilities for the military cost more, from 1965 to 1967, than the total spent by the federal government on all other public housing. At the core, however, lies the real source of DOD control—a stream of $40-odd billion of production contracts for the renewal and expansion of its actual military equipment.

Still another way of putting the Pentagon budget into perspective is to note that Washington is currently spending about two-and-a-half times as much on military equipment and personnel as is collected in taxes by all units of local government.22

Even if we do manage to survive into perpetuity as a species, we need to concern ourselves with the quality of that survival. George Wald, Harvard biochemist and Nobel laureate, went on record last November as predicting the end of civilization within 15 to 30 years unless immediate action is taken against what he called the "overwhelmingly threatening" problems of pollution, population, and the possibility of nuclear warfare. Maintaining that it was "utterly meaningless and bankrupt" to believe that merely increasing food production would resolve population problems, Wald went on to say, "The problem is quality of life, and that quality has already deteriorated within this century. We are overpopulated even here in the United States."23

While far more optimistic than Wald about man's ability to endure, René Dubos, bacteriologist and recipient of the Pulitzer prize for So Human an Animal, is no less concerned about the future character of human existence:

Man will survive as a species for one reason: He can adapt to almost anything. I am sure we can adapt to the dirt, pollution and noise of a New York or Tokyo. But that is the real tragedy—we can adapt to it. It is not man the ecological crisis threatens to destroy
but the quality of human life, the attributes that make human life different from animal life....Survival is not enough. Seeing the Milky Way, experiencing the fragrance of spring and observing other forms of life continue to play an immense role in the development of humanness. Man can use many different aspects of reality to make his life, not by imposing himself as a conqueror on nature, but by participating in the continuous act of creation in which all living things are engaged. Otherwise, man may be doomed to survive as something less than human.24

Our continued misuse of the physical environment does not alone threaten long-held notions about what it is to be fully human. Scientists in the medical and biochemical fields who have performed experiments in the last decade with surgical, pharmacological, genetic, and electrical means of engineering human behavior are forcing us to reask fundamental questions about the nature of man. Hearts have been transplanted; electrodes have been inserted to stimulate the pain and pleasure centers of the brain; amphetamines have been administered to grade-school children to make them more docile; abortions have been performed because cells sluffed off in amniotic fluid have revealed fetal abnormalities; a direct, wireless, two-way radio communication has been established between the brain of a chimpanzee and a computer; a living and reproducing cell has been synthesized; cloning a person, that is, reproducing him from a single one of his cells, is a future possibility, as are in vitro births and transplantations of every vital human organ.25 Too, because of the powers of the Pill, the safety of intrauterine devices, the physical, if not psychological, painlessness of vasectomies, and the movement for women's liberation, we are in the midst of a sexual revolution which may spell the end not only to traditional values having to do with fidelity and chastity, but values having to do with the sanctity of the family.

The present effects on the society of mind-altering drugs and their implications for the future of American civilization are incalculable.
Eight billion amphetamine pills—40 for every man, woman, and child—are being legally produced each year in this country. In 1970, there were more than 225 million prescriptions filled in the U.S.A. for mind-affecting drugs, compared with 166 million in 1965. Approximately 1,100 persons, half of them under age 23, died in New York City alone last year from narcotic-related causes, heroin being responsible in one way or another for about 90 percent of the deaths. Last September, Gunnar Myrdal added "the epidemic proportions of drug addiction" to air and sea pollution, the population explosion, and the proliferation of modern weapons as the major elements that threaten to extinguish "half the earth's population by the year 2000."

But enough.

I cannot tell you how or to what extent your departments and your courses should be reorganized so as to address themselves to the problems I have had time merely to adumbrate; nor can I tell you what you should do as an individual or in consort with others to reconstruct the priorities of this society and to influence the ethical behavior of its citizens. I only know that behavior must change and priorities be renewed if our species is not to go, through default and perhaps not so gently, into that good night. And though I cannot spell out the how's, I nevertheless remain convinced that in the process of reconstructing national goals and of creating a moral society, you and the departments you chair can play a crucial role.

guest editorial with the following words, words with which I would like to close my speech this morning, for they suggest your vital importance:

Today, more than ever, we are living at a time when the human race is fighting for survival. Today no humanist can afford the luxury of a comfortable, ostrich-like political withdrawal. Even the most devoted scholar must recognize this fact, for any current policy of insensitive conquest, of narrow nationalistic interest, or of brutal extermination urgently needs the humanizing influence of writers, artists, philosophers, and teachers to question its mindless direction and to turn it from its suicidal course.
FOOTNOTES


4Who Shall Live, p. 85.


7Kahn and Wiener, p. 61.


10Education USA, 17 May 1971, p. 20.

11Lamm, p. 17.


13"Fighting to Save the Earth from Man," Time, 2 February 1970, p. 3.


22Higbee, p. 82.


25For recent accounts in periodicals of the explosion of knowledge in biomedical and biochemical disciplines, see Time, April 19, 1971; the Atlantic, May 1971; and Look, May 18, 1971.

