Noel Grove Torch Club Paper Presented May 8, 2007

Which Way to the Environmental Revolution?

The environment is back in the news. It never completely left, of course, but its emphasis in the public media was considerably diminished for more than a decade. To this, I can personally attest.

When the first widespread environmental concerns about Earth were gaining steam in the 1980s and early 90s I was named National Geographic's first senior assistant editor for the environment, because I had shown an interest in and concern about environmental damage in my writing for them. I started a column called Earth Almanac that appeared each month in the yellow magazine. A speaker's agent called one day to say that a major company was having its annual meeting and would I be interested in addressing company executives about environmental concerns. More requests poured in: More speeches, television and radio interviews, writing assignments outside the Geographic, a request that I be master of ceremonies at a conference of concerned scientists. The environment had become a hot topic.

Together with other writers, photographers, and television reporters I helped form the Society of Environmental Journalists in 1989. Very quickly we had more than 1,000 active U.S. members, since every major newspaper and television station, it seemed, had an environmental writer or reporter. An offshoot organization called the International Society of Environmental Journalists sprang up.

Our annual conferences drew speakers that included U.S. senators and congressmen, heads of the Environmental Protection Agency, a vice president, and not a few movie stars hawking one environmental cause or another—air pollution, oil pollution, disappearing whales. One film star came to our conference in Los Angeles on a bicycle. Everywhere, people were driving cars smaller and more fuel-efficient than the behemoths of the 1950s.

Pollster Lou Harris testified before a Senate subcommittee that public support for environmental improvements was higher than anything he had ever surveyed. Americans would pay higher taxes, he reported, if they knew the revenue would go toward improving the outdoor environment. Higher taxes!

Of course, we Americans are a fickle lot. We drift from one social obsession to another, from peace protests to anti-materialism to super nationalism and...back to materialism. We even name the decades according to our emphasis of the time: The Roaring Twenties, the Fighting Forties, The Fabulous Fifties, the Turbulent Sixties. Apparently, it was the Nervous Nineties.

Gradually, the nervousness stopped. We had some very cold winters so what was all this talk about global warming anyway? The seas hadn't spilled over into Miami, the air actually seemed clearer in our cities thanks to catalytic converters, and as for disappearing animal species, well, there seemed to be more deer than ever and cougars and alligators were picking off puppies in the suburbs! Concern about the environment cooled.

My agent stopped calling as requests for speaking engagements on the environment dwindled to nearly nothing. The column Earth Almanac was dropped from National Geographic Magazine after running monthly for

more than a decade. The SUV became popular and cars gained in size and fuel appetite again. Many members of the Society of Environmental Journalists reported that their papers were dropping the designation "Environmental Writer" from their bylines, and they were asked to cover other matters and work on environmental stories only when they seemed significant.

But now the environment is back in the news again. Former vice president Al Gore won an Academy Award for his documentary film "An Inconvenient Truth," about global warming. About the same time The Intergovernmental Panel on Climate Change, established by the World Meteorological Organization and the United Nations Environment Program to investigate the causes of climate change, came out with its third report. The new one bolstered and even strengthened two earlier reports that global warming is indeed taking place and that it is caused primarily by human activities.

The war against the forces of environmental evil is on again... at least in the public consciousness. How real is that war, and how dedicated is the American public to fighting it? After centuries of exploiting the resources of this planet with little or no regard for the consequences, are we really in the midst of an environmental revolution?

Let's go back to the beginnings of environmentalism in North America, to the real beginnings, when the word was not even known yet. Environmentalism was not part of the lexicon of the Native Americans in the years of the Jamestown settlement in the early 1600s. They were, nevertheless, witnesses to the changing of their landscape by English colonists who cut down trees, grew soil-depleting tobacco, and whose cattle and hogs ran free to trample and eat Indian crops. Contrary to what most of

us learned in history books decades ago, the East Coast Indians were not defeated by superior European technology, including guns. They were weakened by European diseases, then forced off their former lands by environmental degradation brought about by the newcomers. If they had realized what was happening we would have had the first environmental revolution and it would have been a real war, with the Indians winning. If the powerful chief Powhatan had known how humans could cause environmental damage, he might have kept his daughter Pocahontas closer to home instead of letting her marry John Rolfe. Had it not been for the nonaggression treaty that went with that marriage, Powhatan probably would have wiped out the sickly, smelly invaders when he could have done so easily, and I might be delivering this paper in Algonquin.

A couple of centuries later even the newcomers had come to realize their capacity for destruction. Passenger pigeons once flew over America in flocks so huge they blotted out the sun. When white settlers started moving west, the total weight of bison—perhaps some 60 million—exceeded the total weight of today's human population. Hunting brought the hordes of passenger pigeons down to one bird, which died alone in a cage in a Cincinnati zoo in 1914. By 1889 the millions of bison had been reduced to less than 600, and were threatened with similar extinction.

By the late 1800s voices were raised in protest. The Audubon Society was formed in 1886, the first major environmental group, to prevent extinction of various kinds of birds by plume hunters. Just after the turn of the century Theodore Roosevelt called conservation "... the most weighty question now before the people of the United States," and during his eight years as president 230 million acres were set aside as public land.

But the global consciousness about what we were doing to the environment is dated to the publication of Rachel Carson's *Silent Spring* in 1962, a book about the effect of pesticides on the bird population. In 1970 the first Earth Day took place, ramping up public consciousness as 20 million Americans celebrated nature and demonstrated in favor of environmental action. The date set for Earth Day was April 22, which coincided with the 100th birthday of Vladmir Lenin. *Time* magazine said that was a clue that Earth Day might be a communist trick, and a member of the Daughters of the American Revolution was quoted as saying, "Subversive elements plan to make American children live in an environment that is good for them."

Nevertheless, the American public was energized, trees were planted, cars got smaller, and recycling came back into vogue for the first time since World War II. Of all the elements of environmental change—polluted air, disappearing species, diminished rain forests, threatened whales, pandas in peril—nothing has had as much staying power as global warming. Why? Because it threatens the very world in which we live, and the evidence of its existence becomes more and more indisputable.

The mechanics of global warming are known to virtually everyone these days, but they are worth a quick review. Earth was a cold, unlivable place until the volcanism of the cooling planet left carbon dioxide (CO2) and water vapor in the air. This curtain of elements allowed heat from the sun to reach the earth but not all of it reflected back into space. This is known as the "greenhouse effect," because the transparent curtain acts much like the glass of a greenhouse, or a parked car on a hot summer day. It allows the sun's heat to come in, but not all of it escapes.

As volcanism diminished, Earth's temperature stabilized, the temperature rising or falling as certain cataclysmic events took place, such as huge, uncontrolled fires, or large meteorites striking the planet. The age of dinosaurs is believed to have ended when a huge metorite carved out the Gulf of Mexico, raising heat-reflective dust in the air so that temperatures dipped below lizard toleration.

Scientists nailed down the link between CO2 and earth's temperature more than a decade ago when they drilled deep into the Greenland ice sheets and retrieved cores of ice dating back tens of thousands of years. By analyzing the air trapped within bubbles in the ice, scientists were able to determine the amount of CO2 in the atmosphere at a given time, and the ambient temperature in that same time period. In every case, when the CO2 level was high, Earth's temperature was also high.

Now temperatures are rising again, and rapidly. According to NOAA and NASA data, the planet's average surface temperature has increased by about 1.2 to 1.4 degrees F since 1900. The warmest global average temperatures on record have all occurred within the past 15 years.

According to the Bush Administration's 2002 Climate Action Report, average temperatures could rise another 3-9 degrees F by the end of this century. That may not sound like much, but a nine degree rise in temperature ended the last Ice Age. Already the Greenland ice cap and the great ice sheets in Antarctica are diminishing in size.

What's causing the increase in temperature? I'm reading now from a document released by the U.S. Environmental Protection Agency: "Historically, natural factors such as volcanic eruptions, changes in the Earth's orbit, and the amount of energy released from the Sun have affected the Earth's climate. Beginning late in the 18th Century, human activities

associated with the Industrial Revolution have also changed the composition of the atmosphere and therefore likely are influencing the Earth's climate."

And, as the ice cores dating back tens of thousands of years showed, CO2 content in the air is increasing at the same time as temperatures are increasing. More than 20 years ago when I was researching the changes in our atmosphere for an article in National Geographic I visited a metereological laboratory atop the currently dormant volcano named Mona Loa in Hawaii. What sweeter air than atop a 13,680-foot volcano on an island in the middle of the Pacific Ocean, far from any huge industrial center? And what did the instruments find? That CO2 content in our air is 27 per cent greater than it was in 1850, before the Industrial Revolution. Verification of that figure came when other scientists drilled into a glacier in the Yukon about the same time, retrieving ice cores that yielded CO2 content in the mid-19th Century. The results were the same as those found on Mona Loa: a 27 per cent increase in CO2 since 1850.

There are other greenhouse gases besides CO2, of course—methane from landfills and cattle manure, and nitrous oxides emitted by automobiles, to name a couple. But CO2 is the most abundant greenhouse gas and therefore affects climate the most. CO2 results from the burning of fossil fuels such as coal and oil and by deforestation around the world. The good news is that we seem to have controlled the latter in the U.S., as there is more forest in this country now than there was a century ago. The bad news is that we still lead the world in CO2 emissions, relative to our population, mostly through the power plants that generate electricity and the gasoline that powers our cars. With four per cent of the world's population, the United States contributes 25 per cent of the human-caused greenhouse gases. In fact, the United States emits 1000 tons of CO2 every 15.4 seconds. China,

with a quarter of the world's population, emits 1,000 tons every 9.2 seconds. Germany puts out 1,000 tons every 39.2 seconds, Zambia every 4.3 hours, and the winner may be in the Sahara Desert where the Republic of Chad emits 1,000 tons of CO2 every three days. What will happen as a country like China continues to modernize and industrialize, and a majority of those roughly 1.4 billion people drive cars instead of riding bicycles?

We're already seeing the effects of rising temperatures. Global warming doesn't create hurricanes, but it makes them more intense. As the ocean gets warmer, tropical storms can pick up more energy from the warm water, making them more destructive when they hit land. Plus, as ice sheets melt and the sea levels rise, cities at low elevations such as New Orleans become more susceptible to flooding. A shift in temperatures also affects the air currents just above Earth's surface. How many of us even knew the term El Nino 20 years ago? Now El Nino events with their accompanying high temperatures seem to happen frequently. An El Nino event occurs when the high winds that normally blow warm ocean surface water far west suddenly slack off, and the warm water drifts back to the coasts of the Americas. Global warming may be responsible for that shift in air currents.

Other possibilities are that higher air temperatures will worsen air pollution, that heat waves will be more frequent and intense, and that more droughts and wildfires will occur in some regions, including the American West. Treasured species, including coldwater fish such as trout, may disappear from their historic ranges.

Sounds like we should be worried. Sounds like the need for an environmental revolution. So what are we doing? How are we fighting this war against environmental change?

The biggest contributor of CO2 in this country is power generation. The second biggest is transportation. But the size of houses, which have to be heated and cooled, is steadily increasing, the numerous housing developments covered by what have been called McMansions. A recent study in California showed that the size of houses in sample developments had grown between 1995 and 2002 by 8-10 per cent, with more and bigger bedrooms, and more bathrooms.

Fluorescent light bulbs which last longer and use less energy are now available but so far they make up only 6 per cent of the light bulb market, apparently because they emit a slightly different illumination than what we are accustomed to and their disposal is somewhat problematic. One wonders what that "slightly different illumination" argument would sound like to someone back in the days of candles and kerosene lamps, less than a century ago.

Meanwhile the trend toward Suburban Utility Vehicles (SUVs) has brought behemoths back to our highways, with their large appetites for fossil fuels. The Ford Expedition, the Cadillac Escalade, and the civilian version of the military Humvee all now outweigh a1955 Buick.

The 55-mile-per-hour speed limit was initiated in 1974 as part of the Emergency Highway Energy Conservation Act, then repealed in 1995, leaving speed limits up to the states. The Department of Energy says that as a rule of thumb a car or truck going 55 mph can get 15 per cent better fuel economy than one going 65. Rising gas prices seem to concern us and each 5 mph you drive over 60 is the equivalent of paying \$.21 more per gallon. Speed limits on most Virginia highways except for the interstate system remains 55, but have you tried driving 55 mph on Route 7 lately? You stand in danger of being rear-ended and at the very least, encountering road rage.

The Corporate Average Fuel Economy regulations, known as CAFÉ, were first enacted by Congress in 1975 to improve the gas mileage that our vehicles achieved. At various times the CAFÉ standards have been relaxed due to pressure from the automobile industry. Overall fuel economy for both cars and light trucks reached its highest level in 1987, when manufacturers managed 26.2 mpg. The average in 2004 was 24.6 mpg and in that time, between 1987 and 2004, vehicles increased in size from an average of 3,220 lbs. to 4,066 lbs.

In 1997 the Kyoto Protocol was negotiated to lower the production of greenhouses gases in industrialized countries. U.S. manufacturers, backed up by the Bush administration, said such measures would slow economic growth in this country and the world. The International Panel on Climate Change says, on the other hand, that even the most aggressive measures to control global warming would only slow annual world economic growth by about 0.12 percent, whereas the global economy is growing much faster than that, from 2-5 per cent annually. The Kyoto Protocol was ratified by 118 countries, but the United States was not among them.

This is some war we're fighting!

The truth is, we continue to do next to nothing about the biggest problem where the environment is concerned, one that could be solved in a very low-tech manner, with the condom, the pill, the IUD or the diaphram. There are simply too many of us, and in an economy based on growth, no politician is talking about population control. More people mean more houses, more cars, and more products to be bought, all of which consume more energy and cause more CO2 emissions, and destroy more habitat thus crowding out more plant and animal species.

In all the phrase-making and pop quotations that have accompanied the environmental movement, perhaps the most quoted individual has been a 'possum. Pogo, the comic-strip character, seemed to put his finger on our problems years ago when he said, "We have met the enemy and they is us."

Let's take Pogo a step farther and admit that now that we are confronting the enemy in the environmental revolution we show a reluctance to charge. If we are concerned about the environment, why isn't everyone recyling? Why aren't we refusing to buy Detroit's behemoths, and demanding that our politicians pass legislation cutting back on CO2 emissions and fund research into alternate fuels? Why are large families still rewarded on the tax rolls, and why is the new pinnacle of U.S. population at 300 million lauded as the greatest achievement since American independence?

Life, it appears, is a bit too lovely. Fast cars are fun, big ones ride smoothly, trains are a bother, and huge houses are a mark of success. Turn up the heat in winter so you can roam the house in short sleeves. Turn up the AC in summer so you can start a fire in the fireplace. It used to happen in the White House, with an American president who enjoyed gazing into the flames.

We will become true environmentalists when we truly believe we are dangerously affecting the planet on which we live, and we take serious steps to do something about it. Until that time, the environmental revolution has barely started, and the opening salvos it seems, are being fired by populars.

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Plagues – The Real Thing, The Near Misses, and Their Impact on History
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John Hewetson, Member Frederick Torch Club

There is evidence that plagues have been part of the human experience since before recorded history. Most of you are probably familiar with some of the written record of plagues found in the Bible such as the plague of frogs, gnats, flies, livestock, boils, hail, and the plague of locusts.

The term plague is usually associated with the bubonic plague that occurred in 1346 and continued until 1352. Other examples of plagues, some modern, include AIDS, cholera, anthrax, measles, smallpox, malaria, influenza, typhus, tuberculosis, syphilis, leprosy, Ebola, Hanta, and various hemorrhagic encephalitis virus diseases. Many have influenced human history, and some are waiting in the wings. New diseases are continually emerging, and old ones that once were thought to be relegated to the history books can come back to haunt us. Although we understand a great deal more about them, the world is in fact much more vulnerable to the eruption and spread of infectious diseases than at any time in the past. Most American-trained doctors would be hard pressed to identify some of these diseases if presented with a patient displaying symptoms.

There are many examples of how the social, political, and economic effects of great plagues have altered the course of human history. The plague of Athens around 430-429 BCE killed about a quarter of the Athenians and allowed Sparta to dominate Greece, changing the course of history by muting Athenian creativity.

The Roman Empire was afflicted with several different plagues over 500 – 800 years, all of which eventually were a major factor in its downfall. Malaria (mal aria – "bad air) was endemic for hundreds of years and created an epidemic every 5-8 years. A plague, probably smallpox, from 164-166 until at least 180, decimated the Roman Legions. Another began about 250 and lasted for 16 or more years with the number of deaths exceeding the number of survivors. This plague and others were important factors in the strengthening of Christianity. A

quote from the *Power of Plagues* is instructive: "The ability of Christianity to deal with the horrors and hardships of a plague made church doctrine an alternative to the stoic and pagan philosophies, which were impersonal, uncompassionate, and ineffectual in explaining the randomness of death due to disease. And so Christianity not only altered the current religious and cultural practice of Romans but also influenced future social and political developments."

The Justine Plague, probably bubonic plague, from 541 intermittently until at least 757, ravaged Europe, North Africa, and the Middle East. It is estimated that this first pandemic of bubonic plaque reduced the population of the Mediterranean world by 50%. The losses in population reduced taxes and services, manpower for the armies, and damaged the psyche and self-confidence of the Romans. This pandemic set the stage for the conquest by the Moslem Armies from Arabia in 634 and ushered in the Dark Ages and the rise of feudalism.

The next wave of bubonic plague arrived in Europe in 1347. In July, 12 Genoese galleys left ports of Caffa in the Black Sea, traveled through the Dardanelles by way of Constantinople and arrived in October at the port of Messina in Sicily. Unbeknownst to the citizens of this Medieval City, the Black Death had arrived in Europe. Almost immediately people began to fall ill in ways no one had seen before. Friar Michele describes his observations - "a sort of boil ...the size of a lentil, erupted on the thigh or arm, then the victims violently coughed up blood, and after three days of incessant vomiting...for which there was no remedy, they died, and with them died not only everyone who had talked to them, but also anyone who acquired, touched or laid hands on their belongings". The city fathers of Messina quickly expelled the Genoese galleys but it made no difference. The plague spread indiscriminately throughout the city, to the laborers, merchants, the high born, the clergy - no one escaped its ravaging march up and down the streets and into the countryside. The expelled galleys moved on to other ports in the Mediterranean, and the scenario was repeated. Other ships arrived from Black Sea ports and often were prohibited from landing. Reports surfaced of ghost ships found floating aimlessly, with all

the crew dead. By the fall of 1348 the pestilence finally burned itself out in Sicily. A third of the population had probably died within a year. There was no room in the cemeteries for all the bodies.

This plague decimated European society and ultimately brought a decline and end to medieval society. The population was so reduced that labor was in very short supply, enabling serfs to demand high wages. Peasants who before the Black Death were treated as property now became prosperous enough to leave land to their children. Women were big winners, taking over previous occupations such as metalwork and stevedoring. Interestingly, by 1450 brewing had become virtually all female. Widows took over family shops or businesses and often ran them better than their deceased husbands.

When Europeans discovered the New World they brought with them the many diseases prevalent in Europe. There is little evidence to show that epidemic disease existed in the Americas before the time of Columbus. Smallpox was introduced into Mexico in May of 1520 by Panfelo de Norvaez, probably by a slave in his party from Cuba. The disease spread rapidly among the native population, and it is well accepted by historians that smallpox defeated the Aztecs in present day Mexico City when Cortez could not. When he entered the city after a long siege nearly half the inhabitants were dead from disease. The canals of Mexico City were choked with bodies of smallpox victims. It is estimated that during this period the combined ravages of smallpox and measles killed more than 18 million of the original Mexican population of 25 million, a mortality rate of 72%. That far surpasses even the most pessimistic mortality estimate for a modern nuclear attack.

When the Pilgrims arrived in America in 1620, French records reported that a great pestilence of what is thought to be smallpox appeared among the Indians of the Massachusetts Bay area in 1616-1617 and caused a marked decrease in the native population. A second outbreak occurred in 1633, further diminished the capacity of the Indians for effective resistance. It was an easy extrapolation for the Europeans to make the case that God was indeed on their side and was aiding them in the conquest of their new lands.

On September 21, 1918, 3,108 troops boarded a train at Camp Grant outside Rockford, Illinois, destined for Camp Hancock, a relatively new military reservation near Augusta Georgia. There was nothing remarkable about this event in the middle of World War I. America was on a war footing unlike anything the country had seen before. New men were arriving in temporary military facilities, given a short training, and shipped off to Europe to help with the "war to end all wars". Troops were transferred between camps, and commanding officers had to make do with what they had, crowding men into temporary facilities and ignoring army regulations defining how much space each man should have in the barracks. The men in this train were jammed into cars with little room to move. They were stacked and layered as tightly as if they were on a submarine but instead of 30-40 men, there were over 3000. They were in far closer quarters than in any barracks and with only minimal ventilation. A few of the men started coughing. Then some broke into a profuse sweat, and suddenly had blood pouring out of their noses. Some collapsed or erupted into fever or delirium. By the time the train reached its destination, over 700 were taken directly to the base hospital, followed in the next few days by hundreds more. Nearly 2000 of the 3108 men on that train were eventually hospitalized with influenza, and an estimated 10% of them died.

The effects of the disease on both sides in WW I must have been devastating, but military histories of the war mention little or nothing about the effect of influenza on the effectiveness of the armies in the field. An example from that war illustrates how it may have played a larger role than was realized. The Germans under General Ludendorff quietly massed troops on the Western Front in early summer of 1918. Their attack broke through the Allied lines in several places and was finally stopped at the Marne, 37 miles from Paris. In military histories the typical analysis of this failure to take Paris was Ludendorff's pauses for rest and preparation, which allowed the Allies time to recuperate and gather strength. A number of unofficial reports from this period documented that influenza was devastating the German army during this phase of the campaign. Letters and captured documents indicated that "the new fever is said to strike"

down the men so quickly that they drop in their tracks while on duty. They have high fever for 2-3 days and are usually laid up at least 6 days in the hospital."

Ludendorff was forced to resign on October 26 and fled to Sweden after the war. He published his memoirs in 1919 and blamed the failure of the offensive on the epidemic, or Blitzkatarrh, affecting his forces. He wrote "It was a grievous business having to listen every morning to the recital of the Chiefs of Staff of the number of influenza cases, and their complaints about the weakness of the troops."

Whether the final outcome of WW I was determined by influenza I'll leave to the real historians. However its effects on history in the second decade of the 20th century were profound. More than 500 million people worldwide were affected by the disease and 20 – 40 million died. It killed more people in a single year than the Black Death did in 100 years. In 24 weeks it killed more people than AIDS has in 25 years. During its two-year course more people died from the flu than from any other disease in recorded history.

The progression of an epidemic usually goes through 4 stages, very similar to the stages of dying described by Kubuler-Ross. First there is denial. This may take the form of a personal denial, e.g. "It can't happen to me. I am protected by God or good genes, or my community is protected." Or, more commonly, the government or local officials deny the existence of anything unusual. At the beginning of the 1918 influenza epidemic public health officials in the military and all the major cities and even President Woodrow Wilson claimed this was just a normal, seasonal flu or "La grippe". It was "business as usual". Many times officials in China have refused to admit the occurrence of people dying from flu like symptoms until the outside world takes notice. In 2002 a new form of pneumonia appeared in southern China. Civic and public health authorities ignored the evidence of its existence for as long as they could, but ignorance of the nature of the infecting agent and absence of preventive measures or effective therapy led to a mounting death toll that finally brought the existence of the epidemic to public notice in other countries. By that time it had

spread regionally and had begun to appear internationally. This was the beginning of the SARS epidemic, about which I will have more to say later.

In the fall of 1957 I was freshman in college. I remember well the huge number of my fellow students that reported to the health center with high fevers and multiple aching joints. I myself recall vividly waking up one morning with a headache, cold sweats, and aching joints. All I could do was to go back to bed. I slept for 24 hours. The case of the flu I had was actually mild compared to others at the University. During this time the reports coming out of the health center and the Dean's office was that this is nothing unusual, just a normal cycle of the flu. College students are usually a skeptical lot, and we found it impossible to believe the authorities when our own experience and observations were very different.

In the second stage the response is usually one or another, or a combination of three emotions: panic, anger, and blame. At the beginning of the 1918 influenza epidemic soldiers were reporting sick in droves. Their relatives often descended on the camps demanding to see them. Demands were made on an already stressed health care system for special care for their sons or husbands, compounding the panic and anger with the authorities. The black death of the 14th century is a classic example of blame. As John Kelly notes in The Great Mortality. "On a Palm Sunday night, April 13, 1348, the Christian residents of Toulon, a quiet seaside village to the east of Marseille, attacked the local Jewish quarter. Doors were smashed, windows broken, furniture overturned: men, women, and children were hauled from beds and hurled into the nighttime streets to be jeered, taunted, kicked, and spat upon. Homes were torched, property looted, money stolen, forty Jews killed. Parents were cut down in front of sons and daughters, husbands in front of wives, brothers in front of sisters. The next morning, the bodies of dozens of dead Jews were hanging from poles in the town square. ... As the plague swept eastward across France, Germany, and Switzerland in the summer of 1348, rumors began to spread until they constituted a medieval version of the *Protocols of the Elders of Zion*. By November 1348 every well-informed citizen in eastern France understood that

the plague was not the act of a vengeful God or of infected air, but of an international Jewish conspiracy aimed at achieving world domination. "

Even I have experienced an example of panic on a small scale when faced with an unknown risk of disease. Shortly after the anthrax attacks in the fall of 2001 I had an urgent phone call from my sister. She had heard the news and knowing that I worked with anthrax, wanted to know how she and her family could get vaccinated. I had to re-assure her that the probability of her being exposed was vanishingly small. In addition, someone on my level had no way to bend the rules to get vaccine for her. Her panic persisted through 2-3 more emails and calls, only subsiding when the national scare subsided.

The third phase of an epidemic is acceptance. The plagues of antiquity resulted in a resignation and belief that this was their natural fate and the will of God. Blame subsided when it became clear that no one was spared. This third phase, insofar as it is fatalistic, is largely lacking in the modern era.

The fourth phase involves problem solving, as demonstrated by an ongoing effort to prevent and control the disease, by way of vaccines, drugs, public health measures, behavior changes, and combinations of the above. Control measures and "cures" for several diseases were discovered well before the causes, or etiological agents, were discovered. It was observed as early as 590 BCE in China that intentional induction of smallpox prevented subsequent infection, or reduced the severity of infection. "Inoculation became a routine procedure in many European countries beginning in Holland in 1749, followed by Germany and France. There were, however, concerns over its safety since some severe cases of smallpox and deaths followed instances of inoculation. Fear minimized the use of inoculation in America, and there was strong ecclesiastic opposition to such interference with the 'Will of God'." However, in 1778 Edward Jenner, an English physician, observed a relationship between cowpox and smallpox. Milkmaids who had been infected with cowpox, which caused a very mild disease, did not get smallpox. He performed a classic experiment in which he inoculated an 8-year-old farm boy with cowpox and observed a small local sore. About 6 weeks later he inoculated him with material taken from a patient

suffering from smallpox. The boy did not get smallpox and was never sick. Jenner repeated the experiment 18 times on different people and obtained similar results.

About 75 years later an alert physician and a clergyman refused to accept the then-current dogma that all disease was caused by miasma, or bad air. In late August 1854 a five month old girl in London began vomiting and emitting watery green stools. Her mother soaked the soiled diapers in a bucket of water, and later dumped the foul water into a cesspool in front of the house. Five days later the child was dead. During that same week neighbors began to get sick, and within three days, hundreds of residents were ill, including entire families. Cholera had arrived in London. Before the Cholera epidemic subsided, nearly a third of the population of London had died. The Rev. Henry Whitehead and Dr. John Snow formed an alliance to investigate its causes. Whitehead could not believe that a benevolent God would randomly strike down victims, sometimes completely healthy in the morning and dead by evening. Snow was convinced the disease was caused by some kind of infectious agent and he believed he knew how it was being transmitted. The prevailing scientific community dismissed his ideas, and he became the laughing stock of editorials and letters to the editor in the London press. Although he never found the cause of Cholera because of the limitations of technology at that time, he demonstrated the pattern of transmission and brought changes in public health that controlled the disease and ultimately changed the way science was conducted. In 1854-55 he traced the source of the epidemic to a water supply on Broad Street in the Soho section of London. After a protracted struggle with the prevailing medical authorities and local politicians he convinced them to remove the pump handle from the Broad street pump to prevent people from getting contaminated water. The incidence of the disease immediately began to drop. The actual bacteria that causes Cholera, vibrio cholera, was not identified until some 30 years later. Both smallpox and Cholera are examples of diseases for which a "cure" was discovered before the cause was known. There is still no vaccine or drug treatment for Cholera. But clean water and sewage treatment is 100% effective in its control, and medical treatment consists of re-hydration of the patient with a simple solution of salts and sugar.

Yellow fever was another disease that followed a course similar to Cholera. Many epidemics of Yellow Fever occurred throughout the 18th and 19th centuries but it was not until after the Spanish American War that William Gorgas and Walter Reed made the discovery in Cuba that mosquitoes transmitted the disease. Most of you are familiar with the story of the Panama Canal - how French attempts to build a canal across the Isthmus in the late 19th century met with repeated failure because of faulty engineering, poor knowledge of local conditions, but most importantly because of Yellow Fever and malaria. An estimated 20,000 – 22,000 French workers died of disease. After Theodore Roosevelt negotiated the independence of Panama from Columbia, the Army assigned William Gorgas as public health officer for the American canal project, and he oversaw a campaign of mosquito control. Gorgas' efforts led to a 90% reduction in disease-related deaths compared to the French experience, and the Canal opened on August 15, 1914. The cause of Yellow fever was identified as a virus by the Reed Commission, the first time a virus was identified as causing disease in humans, but the virus was not isolated until 1927.

Vaccination is now a common means of protection against many of the ancient scourges. Once the causative agent of a disease is identified it is usually, but not always, possible to make a vaccine that will protect people from infection. You are all familiar with vaccination of children against diphtheria, pertussis and tetanus (DPT), polio, and measles. Vaccines exist for yellow fever, plague, influenza (flu), and anthrax. New vaccines continue to appear. You probably have heard about a recently released vaccine for cervical cancer, which is actually a vaccine against a papilloma virus strongly associated with this type of cancer. One downside of vaccination is that it can take from 3-4 weeks to several months and multiple vaccinations to develop protective immunity. In addition, modern microbiologists, chemists, and virologists are continually developing drugs for treatment of infectious diseases.

men presenting during the first two years were dead within a year. The common factor in all these cases was a total collapse of the immune system. AIDS had arrived in the United States. It became clear as early as 1983 that the virus was also transmitted heterosexually. Now the world has a pandemic unprecedented since the Black Death and the influenza pandemic of 1918. The difference is that this pandemic is chronic rather than acute. 65 million people have been infected since 1981 and 25 million have died. Africa has 70% of the world's cases of AIDS and it's estimated that more than 80 million people may die in Africa by 2025. The last few years have seen a 56% increase in cases in East Asia and a 46% increase in Eastern Europe, mostly in women. HIV infection and AIDS is low on the radar in most developed countries, but only an estimated 25% of those in the US who are infected know that they are positive. It takes several years, sometimes 10 years, between infection and the appearance of symptoms. Thus, the virus can be spread unknowingly, so it is to society's benefit that there be universal testing. In 2005 there were 11,000 new HIV infections A Day. There has been remarkable progress in understanding the virus replication and many drugs are available for treatment, but there is no cure. All the drugs do is turn an acute case of virus infection into a chronic case. The drugs are expensive and must be taken on a rigid schedule. The world's leaders are beginning to recognize that treatment without prevention is unsustainable, and we need to do more to move from a charity model to a justice model in a global sense. Stigma and discrimination remain a challenge, but we have to be aware of what could happen if we can't get on top of this epidemic.

Influenza is another hot topic. Will a new strain appear with virulence similar to the 1918 strain? Will it be adapted to human transmission? Can governments, scientists, pubic health officials and industry respond with a vaccine or other treatment quickly enough to avert a repeat of 1918? Will the panic that is certain to occur hinder effective quarantine and public health measures? Recently there have been reports in the press about new flu outbreaks in Indonesia, Vietnam, South Korea, China, and Egypt. Four people have died of avian influenza, but at present there is no indication of human to

human transmission. Public health officials appear to be monitoring these out breaks closely, and keeping the public well informed.

The last current hot topic is bioterrorism. Since the anthrax scare in 2001 an enormous increase in spending and awareness has occurred. One only has to observe the new construction at Ft Detrick to see results of this effort. Among the agents receiving the most attention are anthrax, smallpox, bubonic plague and Ebola virus. The one that concerns me the most is smallpox, because no one in the general population has been vaccinated since 1970 because of an unprecedented 100% successful campaign by the World Health Organization to eliminate the disease. The last natural case was reported in Somalia in 1977. A nightmare biological scenario is that a rogue government or terrorist groups release smallpox in a major city. An estimated 30% of the population could die. In the US alone 120 million people have been born after the end of routine vaccination and would be highly susceptible to infection. However, just last week there was an announcement from the FDA that a new vaccine against smallpox has been approved. This vaccine can be made quickly, and in the event of a release of anthrax, used to protect individuals and populations during a bioterrorist attack.

So on that sober note I conclude this discussion. Plagues, pandemics, and infectious diseases have always been with us and will continue to influence historical events. We now know the causes of virtually all known diseases, but such knowledge does not mean we can control them to prevent widespread panic, illness, and death. An informed public that does not give into panic and a responsive public health system are essential to the management of potential pandemics. Emerging diseases are continually being identified, and strong international efforts will be necessary to limit their impact on us all.

The Pursuit of Happiness

by Ann Foard Delivered to the Blue Ridge Torch Club October 9, 2007

To Americans, the phrase "Pursuit of Happiness" has iconic status. Many believe it's in the constitution, probably part of the Bill of Rights. It's not. Rather, it is one of the "inalienable rights," along with life and liberty, which appear in that treasonous document, "The Declaration of Independence." The choice of the phrase "pursuit of happiness" was a curious one. Jefferson and a number of the founding fathers were profoundly influenced by John Locke's "Two Treatises on Government," which used the phrase "life, liberty, and property" as being among those things a government is bound to protect. Scholars have been debating for over 200 years about why Jefferson chose to change the phrase to "life, liberty, and the pursuit of happiness," but we can make some good guesses.

Shortly before the drafting of the Declaration, Jefferson had been deeply involved in the efforts of the Virginia legislature to write a state constitution, an effort which he and his fellow Virginians felt was much more significant than activities at the Continental Congress to justify a war that had, in fact, been going on for more than a year. George Mason had written a preamble to the Virginia constitution containing the words:

All men are created equally free and independent and have certain inherent and natural rights . . . among which are the enjoyment of life and liberty, with the means of acquiring and possessing property, and pursuing and obtaining happiness and safety.

Mason's words were published in the *Pennsylvania Gazette* on June 12, 1776, the same day they were unanimously approved by the Virginia Legislature. Jefferson scholar Joseph Ellis points out that it strains credulity to deny the influence of Mason's words on Jefferson, but the ideals expressed were not original with Mason either.

Jefferson, Mason, and their colleagues in Virginia and Philadelphia were Enlightenment thinkers, influenced by Greek and Roman ideals about government, personal liberty, and happiness. These ideas were, in fact, intertwined. Briefly, they believed the "greatest good," to be promoted by individuals and protected by government, was happiness. "Happiness," to philosophers and Enlightenment thinkers, did not mean "how I feel right now," or "being able to do anything I want," or "having lots of stuff," as one might conclude from observations of contemporary society. Happiness was, rather, the result of living a balanced and virtuous life. Happiness, or eudaimonia, was not a static experience, but a constant effort, the sum total of a life well-lived. To be happy required an individual to cultivate his faculties and talents, be educated, employ reason, accept responsibility, temper passions, govern himself, appreciate beauty, and live in communion with man and God. The best form of government to promote this "greatest good" was thought to be democracy, because the pursuit of happiness requires individual liberty. This was the intellectual climate in which Jefferson and Mason, as well as John Locke and other Enlightenment thinkers, developed their philosophies of government.

Joseph Ellis surmises that another more practical reason for substituting "the pursuit of happiness" for "property" as an inalienable right, may have been to separate property ownership from the franchise, and to minimize uncomfortable discussions about the institution of slavery.

Whatever the origins of the phrase and the high ideals that engendered it, Americans today seem to feel that they have not only a right to *pursue* happiness, but indeed the right to happiness itself, a notion that Jefferson and the other founding fathers would have thought ridiculous. We could spend the rest of the evening simply cataloging the social pathologies that have resulted from some of the individual and self-serving notions of "happiness" in our culture, but I'd rather take another path and explore what the new field of **positive psychology** has to say about what contributes to happiness, what doesn't, and whether it's possible to make yourself more "happy" than you think you are.

"Positive Psychology," according to Martin Seligman, is "a science that seeks to understand positive emotion, build strength and virtue, and provide guideposts for what Aristotle called 'the good life." Seligman, generally considered to be the "father" of positive psychology, notes in his new book *Authentic Happiness* that traditionally psychology has focused on mental illness, those things that make humans unhappy and dysfunctional. Even today, for every 100

journal articles on sadness, there is only one on happiness. Seligman, by the way, is not one of the pop psychologists whose works line the self-help aisles at Barnes & Noble. He is the Fox Leadership Professor of Psychology at the University of Pennsylvania, director of the Positive Psychology Network, and former president of the American Psychological Association. Seligman and others in the field are attempting to bring scientific rigor to the study of happiness.

How do they do that? Social science research is notoriously "fuzzy" anyway. How do you study emotions? How do you measure feelings? What lab tests exist to quantify a sense of well-being? Yet by using the standard instruments of psychological and sociological research—questionnaires, surveys, interviews, lab experiments, statistical analysis, and even occasionally electrodes measuring what areas of the brain are firing—and using these measures on large numbers of people and over long periods of time, researchers such as Seligman are beginning to put together a body of research that compels respect and attention.

One area of positive psychology research focuses on factors that seem NOT to contribute to happiness. Most Americans, when asked what would improve their quality of life, say "more money." Yet research shows little correlation between wealth and happiness. If people have enough to meet basic needs—food, clothing, shelter, safety—having more money does not seem to produce more happiness. While there is a slight difference in the happiness of people in rich countries and poor countries, it cannot be shown that wealth is the significant variable, since there are also usually important differences in health, safety, education, democracy, etc. In this country, very wealthy people—those on the Fortune 500 list, for example—are only slightly happier than the regular population. What about sudden wealth? Within a few months, people who receive a significant windfall—winning the lottery for example—show no overall increase in happiness and in some cases show a decrease, reporting that after awhile, buying new things loses its appeal and that the losses in human relationships exceed their monetary gains.

What about health? We all want good health and a long life, and there is some correlation between ill health and unhappiness or depression, yet apparently being healthy doesn't quarantee happiness either. You can be physically fit but miserable. Nor does ill health or disability necessarily mean you will be unhappy. After an initial period of adjustment, most people who have suddenly become ill or disabled, tend to return to the normal level of happiness that they experienced before. A story on the Science page of the Washington Post last Monday (1 October 2007) illustrates the point. An article titled "Is Great Happiness Too Much of a Good Thing?" tells the story of Harry Lewenstein, a 70 year old retired electronics executive, who, ten years ago, was riding a bicycle too fast down a hill in Portugal. He hit a bump and was propelled over the handlebars, landing flat on his back in the road. The injury permanently deprived Lewenstein of all use of his legs and limited the use of his hands. Now 80, Lewenstein is not only still alive, but reports that he has spent no time in the past decade feeling sorry for himself. He acknowledges that he was riding the bike faster than he should have been but doesn't regret the accident. Instead, each day he discovers new ways to be resourceful and to use the capacities he does have, and finds new reasons to be grateful. The Post article quotes him as saying, "Some people feel sorry for themselves or mad at the world, I did not . . . after I was injured, I was so totally incapacitated and so much out of everything that every day turned out to be a positive day. Each day I recovered a little more of my memory, of my ability to comprehend things." We might dismiss such a story if we read it in one of the saccharine self-help books that claim to transform people's lives by teaching them to will themselves to success and happiness, but when it appears on the Science page of the Post and is buttressed by a major new study reported in the Journal of Personality and Social Disorder, we need to take it more seriously.

Positive psychologists have discovered that knowing something about a person's objective life circumstances, including income, state of health, gender, ethnicity, nationality, education level, or even age, tells us little or nothing about that person's state of happiness. We might have guessed that that happiest people in our society are the rich, healthy, highly-educated, white males—the ones with most of the power and toys. Yet those factors seem not to correlate strongly with happiness.

So if the obvious external factors don't bring happiness, what does? Aggregations of hundreds of studies on happiness have found some commonalities that extend across demographic categories in defining the characteristics of happy people.

- Control: Happy people have some sense of control over their lives. They feel they have choices and can influence what happens to them. This factor has been observed in studies even with very young infants, and may explain why people living under repressive regimes report less happiness than those living in freer societies.
- Optimism: Happy people tend to feel optimistic about themselves and their worlds, tend
 to expect that things will work out, are confident that they will be successful, and are less
 likely to blame themselves when things go wrong.
- Self-Esteem: Happy people like themselves. They tend to focus on their positive qualities and attribute their successes to their own efforts. They report general satisfaction with their lives and circumstances.
- 4. Spirituality: Happy people also tend to have a strong sense of purpose in life and affiliation with ideas and institutions larger than themselves. They are active in pursuing those goals. Members of religious groups on average score higher on happiness surveys than non-religious people.
- 5. Relationships: Not surprisingly, people who have close ties with other people—families, friendships, communities and organizations—report significantly higher levels of happiness than those who lack those strong bonds. While some among us seem self-sufficient and enjoy being alone, most humans need close contact with others to feel happy and satisfied.
- 6. Flow: Another quality that distinguishes happy people is engagement in meaningful work, something Mihaly Csikszentmihalyi calls "flow"—the ability to lose oneself in what one is doing. What the work is doesn't matter as much as the ability to completely engage in it to the point that time and even self cease to matter. Whether the activity is saving the world or weeding the flowerbed, if you become totally caught up in it, you are experiencing flow.

Given these characteristics of happy people, noted time after time in hundreds of studies, it is not surprising that the people in the United States who consistently report the highest levels of happiness are the Old Order Amish. How can that be? True, the Amish eschew much of what many of us "pursue" in our "pursuit of happiness," but that "eschewal" is a conscious and deliberate decision based on the conviction that a happy life and an easy life are not the same thing, and that too much ease and too much stuff distract us from what is truly important in life—God, family, and community.

A few years ago I read an article by a journalist whose assignment was to spend six or eight weeks with an Amish family in Ohio and to write about what it was that characterizes the Amish culture. In other words, how and why have they survived in what was then 20th century America? The journalist wrote of the difficulties of trying to manage with wood stoves, kerosene lamps, washboards and horse-drawn plows, and without buttons, automobiles or telephones, and also to figure out WHY the Amish choose to do that. After about four weeks of working alongside the Amish women in that community she experienced an epiphany—one of those road-to-Damascus blinding insights—while she was folding dish-towels. Suddenly, she said, she realized that to the Amish, every activity, regardless of how mundane, is an act of worship. Even folding a dish-towel, and folding it well, is a way to affirm belief in God and to celebrate the Amish way of life. It is a manifestation of happiness.

So—we have seen what doesn't make people happy and what are the characteristics happy people share. Is it possible for people to make themselves happier? Well . . . up to a point, according to Martin Seligman and other positive psychologists. You have heard of the "happy gene"? While scientists have not yet identified a particular gene associated with happiness, nevertheless researchers agree that about 50% of an individual's ability to experience happiness is probably genetic, that is, like high colesterol, you inherit your general disposition from your parents. Using studies of identical twins raised separately, positive psychologists say that some people tend to respond more positively to life experiences and others respond more negatively, and that we all have a "range" of emotional response within which we operate. My mother, for example, has the happy gene, if there is such a thing. There's a family joke that no matter how terrible the weather is, my mom is likely to say, "I think it looks a little lighter over there." My dad, on the other hand, always seemed to have gray cloud over his head, and while

he sometimes was able to enjoy himself, he was likelier to see the cloud than the silver lining. Fortunately I take after my mother.

Within our genetically determined range, however, there are things we can do to make ourselves happier. One lab-tested strategy suggests that acting as if you are happy actually makes you feel happier. Using college students as volunteers, researchers determined that even something as basic as holding a pencil sideways in your mouth to widen your facial muscles into the semblance of a smile can lighten your mood. Other volunteers were asked to view funny movies or look at pleasant pictures and they too demonstrated a more positive mood than those who did nothing or who looked at negative images. Personally I find those strategies, while interesting, unsatisfying and certainly transitory. What about more long-term strategies?

Remember that old song "Accentuate the Positive"? How about "On The Sunny Side of the Street"? They contain some wisdom that positive psychologists would confirm. Cultivating a positive outlook on life, focusing on strengths instead of weaknesses, looking for things to praise rather than complain about, even "Counting Your Blessings" can be helpful strategies in increasing your happiness quotient. Happiness researchers have concluded that much of the dissatisfaction they have measured in people comes from comparing ourselves with those we perceive to be better off than ourselves. Our house, our car, our kids, our accomplishments, may seem fine until we realize that the guy across the street or the former high school classmate has something bigger, shinier, smarter, or more impressive than we do. In other words, our satisfaction is relative to those around us. The self-help gurus may actually be on to something when they recommend keeping a "gratitude journal" to remind us of the positive things in our lives.

Do you meditate or pray? Taking some time to sit quietly, breathe deeply, and let the stresses of the day drain away not only has been shown to increase happiness, it also reduces blood pressure and improves overall health.

While good health in and of itself doesn't guarantee happiness, eating sensibly and getting some exercise can also affect your mood positively by triggering some of those feel-good chemicals we all have in our bodies.

We all know these things, but they too, while probably true, may seem superficial to those seeking a major transformation, rather than a quick attitude adjustment. Where does long-term happiness come from? Not from pursuing it, apparently. Happiness, according to Viktor Frankl in Man's Search for Meaning, cannot be pursued; like success, it comes as an unintended byproduct of one's dedication to something greater than oneself. Frankl, who was interned at Auschwitz and other concentration camps during World War II, writes about what it was that enabled some to survive the Nazi death camps, despite unspeakable miseries. Those who lived did so because they had found meaning in their lives and in their suffering. Frankl identified three possible sources for that meaning: in work—that is doing something significant; in love—caring for another person; and in courage during difficult times-maintaining human dignity despite suffering. Frankl went on to say that even when forces beyond your control take away everything you possess, you still have the freedom to choose how you will respond to your situation. Many people report that Frankl's book changed their lives because it addresses the fundamental question we all need to answer: What is the meaning of my life? As Frankl shows, we give our lives meaning by believing in and acting on something larger than ourselves. And that is true regardless of our circumstances in life.

Viktor Frankl provides an extreme example of a fundamental principle: deep, long-lasting happiness comes from within. When we know what our lives mean, what it is that we would both die and live for; when there is harmony between our values and our actions; when we can lose ourselves in our work, even if that work is folding dish-towels, then happiness will come to us, not because we have pursued it, but because, like Harry Lewenstein, we choose to make the most of what we have been given.

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Why Is There No Socialist Party in the United States?

By George B. Du Bois, Jr

Presented to the Blue Ridge Torch Club on January 8, 2008

When one compares political life in the United States and in Europe, the culture to which most Americans trace their ancestral roots, one is struck immediately by the fact that a socialist or labor party is currently in power, or shares power, or is the principal opposition party in various European nations, including Great Britain, France, Germany, and Italy while the United States no longer even has a socialist party—an apparent exception to the normal occidental pattern. The high point for a socialist presidential candidate in this country came in 1912 when Eugene Debs, one of the most charismatic men ever in American politics, garnered just 1.8% of the vote in industrial Baltimore. [Here let me say, parenthetically, that since I originally addressed an audience of Marylanders at the Frederick Torch Club, I used statistics and anecdotes from that state, but be assured that they are representative of Virginia and of the nation as a whole.]

If one looks at changes in society during the era of rapid transition to an industrial economy—from roughly the Civil War to the First World War in the case of the United States, at first glance one would expect to see the development of a lasting, viable socialist or labor party here. These changes, characterized by exploding economic and demographic growth, were dramatic. In 1860, Baltimore had a little over 200,000 inhabitants with 17,000 wage earners in 3,000 manufacturing and mechanical businesses. By 1890 the population had doubled, the number of wage earners had quadrupled, and the number of manufacturing establishments had more than doubled. The value of manufactures, I might add, had sextupled. Such periods of rapid transition are often marked by severe social discontent.

These statistics only summarize in abstract fashion the changes workers were experiencing—often to their disadvantage. Looking at the world of labor, one sees that the growth of national markets linked by the new railroads was upsetting wage and price patterns previously established in relatively isolated local markets. Economic life was more and more punctuated by a cycle of prosperity followed by harsh downturns— in short, by boom and then by bust, with its consequent large increases in unemployment. Where once the journeyman mechanic had labored

in a small unit of production, now he often worked in a factory. Where once his manual skill acquired from years of apprenticeship was the key to production, now the machine began to supplant him—machines that occasionally maimed or killed him. Psychologically, where once the journeyman mechanic had enjoyed face-to-face daily contact with an employing master craftsman who worked alongside him, now many experienced increasingly impersonal relations. The master craftsman more and more became the seldom-seen businessman.

These are generalizations. Let me humanize workers' problems with some actual recorded experiences. The invention of food canning before the Civil War had led to a huge oyster canning industry in Maryland, with thousands of workers—from canmakers to dredgers. Those who labored as dredgers—on 150() boats working out of Baltimore alone—were probably the most downtrodden workers in the State. These men were frequently "shanghaied" by so-called shipping agents. They often suffered hunger, deprivation of wages, injury and even death at the hands of unscrupulous oyster boat captains. The following case of abuse is one among many described in the annual report of Maryland's labor bureau in 1886:

John Hood—Dredger; received at St. Joseph's hospital; could not walk; had a starved appearance; said that for four weeks he had not enough to eat, and was beaten and overworked. Had ulcers on both feet, and the tips of his fingers and toes were frostbitten (a toe was amputated in the hospital)...21 years old; native of Washington, D.C.

In that same year, 1886, the newspapers of Baltimore reported day after day the events of a struggle by the city's streetcar workers to shorten grievously long hours. The need for public transportation had expanded with the increase in population and the expanded geographical area of the industrializing city. The average workday was 17 hours by the time streetcar drivers had unhitched their horses and conductors had accounted for fares—six days a week. Including time spent coming to and going from the job, these men had a scant six hours at home, most of which was spent in sleep. Small wonder that a driver often found himself falling asleep while holding the reins. One of the workers summarized the effects, "The first two or three days a fellow feels all right, but toward the end of the week he begins to feel pretty bad. Then he gets his day off and makes up for lost sleep."

Lack of sleep was not the only consequence of the long working day. A driver's wife or children customarily brought him a hot meal at one end or the other of his route. If, however, he was late in reaching his destination, he took the meal to the other end of the line and ate it cold. Delays and the consequent need to start the return trip immediately upon arrival also meant that many a driver—and his conductor—started off with no time even to relieve themselves. Long hours, a cold meal, a full bladder and a struggle to keep their eyes open were the lot of Baltimore's streetcar workers.

One conductor summed up his grievances:

I have two children and often do not see them awake for a week. Every night I go to their bed and look at them while they are asleep and kiss them. . .if I complain, I would be bounced.

Children too suffered during the industrial revolution. A cannery near Baltimore, for instance, employed two girls in 1912 in a basement room sealing cans with rubber dissolved in benzol. Both suffered internal and external hemorrhages from breathing the fumes. Their white blood cell count just before death was 500 compared to a normal range of 8,000 to 10,000.

Under the circumstances described, at first glance one would expect socialism or some related form of radicalism to take root and flourish. Similar circumstances did produce socialist and labor parties in Europe.

I now turn to the reasons historians have advanced to explain the failure of American socialism. I will start with the political factors. These factors have discouraged the formation of all types of third parties in this country, whether a socialist party, a prohibition party or a libertarian party.

First, our system of winner-takes-all elections deterred formation of third parties—elections for president at the national level and governor at the state level. The presidency and the governorships were the offices with the power of veto, the power of refusing bills passed by the legislature, offices without whose capture little could be accomplished to bring about change. A vote for a socialist candidate for president or governor, a candidate without prospects of electoral

success was simply a "wasted vote." Workers intellectually inclined to socialism voted for either the Democrat or the Republican—the lesser of two evils perhaps, but someone with a chance to win.

Second, the federal system also discouraged third party formation. In the early 1900s British workers had to establish only a single national labor party. American workers, in contrast, were faced with the daunting task of establishing a separate third party in every single state—daunting in terms of expenses and of compliance with multiple sets of requirements to win a place on state and local ballots. Here let us remember that most legislation before the New Deal took place at the state level.

These are formal aspects of our political system which discouraged radical parties—winner-take-all elections and federalism—but there were informal aspects as well. Most important here is the practice of the two major parties to co-opt planks from radical parties' platforms. The outstanding example in American history is the radical platform of the unsuccessful, but to the major parties, worrisome Populist party in 1892. Within 30 years the major parties adopted and enshrined in the Constitution itself the Populists' then-radical demands for women's suffrage, direct election of senators, and an income tax.

In the United States the goal of the two major political parties was simply to win elections, and they were free to adopt radical proposals as their own if that "theft" kept restless workers voting in the mainstream. In Europe, on the other hand, the goal, of political parties traditionally was to represent ideological points of view, and purity of doctrine usually took precedence over electoral success.

Another informal factor, as Stephen Thernstrom has pointed out, was the geographical mobility of workers. From census to ten-year census during the period of industrialization, some half of the workers of any American city changed their state or city of residence. To some extent at least, those seeking to establish a viable socialist or radical party would have found it hard to create a stable core of voters. European workers, in contrast, tended to stay put.

A more subtle political factor is early possession of the right to vote by American workers. Here a question of timing is critical. The United States adopted universal manhood suffrage before the industrial revolution. In Europe workers gained the ballot only after the industrial revolution had already begun. European workers therefore struggled for economic and political rights simultaneously. European workers became keenly aware of the relationship between political power

and economic gain. During the period of industrialization, American workers, in contrast, struggled mainly against employers and assumed that with their right to vote they already possessed a full share of political power.

Next, let us look at a few economic factors. Perhaps we are only looking at a single factor since they are all closely intertwined, but for analytic purposes it is useful to treat them separately.

First, Americans were, as David Potter said, a people of plenty. All contemporary observers of the American labor scene— both before and during the period of industrialization—agreed that the standard of living of American workers particularly skilled workers—was higher than that of their European counterparts. A higher degree of home ownership, more meat on the table and better clothing seems to have made the majority more willing to tolerate the existing economic system.

Second, American industrial capitalism was an enormous economic success. Our factories produced such an abundance that workers could live better even while inequality of wealth and incomes was increasing. The already higher standard of living of American workers increased over time.

Third, there was a degree of occupational mobility in the United States at least into the lower ranks of white collar workers—even for the unskilled—and a degree of social mobility for one's children. Although there was as much occupational mobility in many European countries, one can't discount the effect of occupational mobility as a factor in dampening enthusiasm for radicalism. About whose mobility are we talking'? If we look at foreign-born workers, we find very little mobility, but if we look at white male native-born workers with native-born parents, that is to say, third generation at least, we see considerably more occupational mobility. Each wave of immigrants took the worst jobs and pushed those who preceded them upward. The white male native-born with native-born parents—some 40% of all white male workers consistently in every census from 1870 to 1910—profited in particular from this phenomenon and probably had a higher rate of occupational mobility than the average worker in any European country. And let us remember here that among all workers these native-born workers were surely the most indispensable for any potential radical movement. These men spoke the language and were culturally acclimated. They had a better grasp of how things worked in the new economy. They had on average more education and better work skills. To summarize, relatively high occupational mobility for the 40% of American workers best positioned to lead the labor movement deflated much industrial dissatisfaction.

Fourth, the economic situation even dampened the enthusiasm of many of the foreign-born for radicalism—some 30-odd percent of white male workers in those same censuses. Most immigrants had been low-status peasants in the old country for whom American pay was usually a step up economically. Moreover, many of the foreign-born were distracted by dreams of eventual return to the old country. With savings accumulated from their stint in America, they hoped to resolve the problems that had impelled them to emigrate in the first place. By acquiring land in the "old county," many could reestablish their traditional way of life. The short-term outlook and narrow focus on earning money of these "birds of passage," as Gerald Rosenblum has called them, impeded any long-term effort to build a competitive political party. From 1899 to 1924, there were 34.6 departures from the country for every 100 arrivals.

Historians also find immigrants very important as an explanation for another reason. The argument is more or less to the effect that the great diversity of ethnicities in the work force, with differing cultural traditions and languages, made it difficult for workers to relate to each other. I think this argument, while important, is somewhat less so than historians usually claim. Immigrants in Baltimore joined unions just like native-born workers. Besides, I think that, had the key 40% block of native-born workers wanted to promote socialism, they could have strongly influenced the immigrants in that direction. Socialism was already common among immigrants from Germany and Finland and among immigrant Russian Jews, though not among other nationalities. The native-born were, after all, the common denominator among workers.

Next, having surveyed some political, economic, and ethnic factors, let us look at some historically characteristic American values.

Protestantism has played a major role in the creation of one value that was an obstacle to the socialists: individualism. Protestant dissenters came early to America seeking religious freedom. They brought with them their characteristic desire for an individual direct relationship with God without any earthly intermediary and their concern with the salvation of the individual soul. Their religious stress on the importance of the individual eventually became a secular value as well. Socialists a century and more later had great difficulty in convincing individualistic Americans to vote for candidates advocating a collectivist economic system, the very antithesis of this historically cherished American value.

Another source of that same individualism was the English middle class, including merchants, artisans, and yeoman farmers. Of the three classes in England in the 17th and I 8th centuries, the middle class was uncomfortably sandwiched in between two classes with longer traditions. These were an aristocracy and a servile lower class, remnants of the Middle Ages, remnants of the feudal past. The middle class, the people who came to the American colonies and left noble pretension and servile deference behind, was precisely the group that even in England was trying to break away from the dead hand of the past, was trying to escape economic restrictions, was trying to gain economic freedom. These were the people who crossed the Atlantic to seek by their own individual efforts whatever awaited them of good fortune or bad. Like the Protestant dissenters, they contributed to American individualism.

Another factor is American equalitarianism. We have avoided the indicia of superiority and inferiority left behind in Europe. We have no titles of nobility, no King's English, no class-specific modes of address or behavior. Leon Sampson took this analysis a step beyond. He argued that Americans rejected socialism because they thought they already had the equality that socialists promised. He argued that American equalitarianism was a surrogate socialism. Histoncally, the American worker thought he was as good a citizen as anyone else. The European worker knew quite well that he was not. This sense of social equality, whether or not a mere myth gained impetus from the American revolution when all men were declared to be equal, and most of them began then, if not earlier, to act like it.

The American Revolution also affected our system of values in another way eventually inimical to socialist efforts. It strongly reinforced an already-existing tendency to mistrust government. After his one brilliant paragraph of political philosophy, Thomas Jefferson got to the real meat of the Declaration of Independence: the multiple transgressions of George III and his governments. So suspicious of government were the victorious revolutionaries that their first devised political system, the Articles of Confederation, omitted an executive branch and denied to the new national government the power to tax. At least until well into the 20th century, Jefferson's dictum that government was best which governed least resonated with most Americans. Socialist arguments that the way to economic justice was through an all-encompassing state fell mostly on deaf ears, even among workers.

There is another important value—or perhaps it is better called simply an approach to life—which warrants more attention than most historians usually give it: American pragmatism. Philosophers William James and John Dewey attempted in the early 20th century to state pragmatism explicitly in technical philosophic terms, but they did not spin their doctrines out of whole cloth. These men drew upon long-standing, unstated, taken-for-granted American values in formulating what is universally recognized as the only great American school of philosophy. The core of pragmatism as practiced unselfconsciously for centuries by Americans is to test the value of ideas (or ideologies such as socialism) by their consequences or lack thereof. The pragmatist abandons ideas that do not bear fruit within a reasonable period of time. The pragmatist has a practical approach to problems and compromises when necessary. The pragmatist values inductive reason over deductive— whether the deductive theories of Adam Smith or the deductive theories of Karl Marx. The pragmatist arrives at conclusions only after an analysis of facts. It is not a coincidence that one of labor's principal demands after 1865 was for the creation of state and national bureaus of labor statistics, organizations created for the express purpose of gathering the facts.

Alexis de Tocqueville, best-known of the thousands of foreigners who have commented on American characteristics, said in the 1830s of Americans that "their minds, accustomed to definite calculations, are frightened by general ideas and they hold practice in greater honor than theory." Socialism was simply too theoretical to interest most American workers.

If we now turn our attention once again to the history of Maryland, we can see American pragmatism in action. Leaders among Baltimore's workers formed independent political parties five times—in 1869,1877,1878,1882, and 1886—to seek a solution to the problems humanized earlier in this paper by the stories of oyster dredger John Hood, of the exhausted streetcar workers, and of the two girls in a basement sealing cans with rubber dissolved in benzol All these political experiments were to no avail. Despite their efforts, these independent labor parties succeeded only once in electing a single city councilman—one out of thirty seats—in five different campaigns. That's a total of one victory in 85 tries, and even he won only because he was also nominated by the city's Republicans. Even in the worker strongholds of East and South Baltimore, the independent labor parties usually garnered only 10-20% of the vote. Hence, the socialists who sought the votes of Baltimore's workers in 1908 and 1912 were two decades too late. The city's

workers by then had pragmatically rejected independent politics as impractical, but they did not become politically inactive.

Simultaneously with their failures to elect their own candidates, they began to experience success in finding allies in the wider community on important issues. In shifting coalitions with businessmen, professionals, journalists, clergy, academics, reform-minded politicians, and liberal women, they lobbied the state legislature. They obtained a law protecting oyster dredgers, a law limiting the hours of the city's streetcar workers, and a law requiring reports of occupational diseases to the State Health Department. Eventually they obtained laws on child labor, shorter hours for women workers, and workmen's compensation, to name a few.

They abandoned futile third-party politics in favor of lobbying activities as the most practical vehicle for achieving their goals. American workers did not want, as Charles A. Beard put it, to "ride a dead horse." Independent politics had yielded little while lobbying had brought significant incremental gains. In abandoning the one for the other, Baltimore's workers acted pragmatically as Americans had traditionally acted. Here we see that pragmatism is closely related to another American value. As Seymour Martin Lipset has noted, Americans have an achievement, or "success" standard for measuring personal worth. They have the same standard for measuring the worth of their political activities.

In seeking the reasons for the absence of a viable socialist party in the United States, we have looked at fourteen aspects of our political system, our economic life, our ethnic mix, and our value system. There are more, but I have covered the most important. I will list those fourteen again in summary:

- winner-take-all elections;
- the federal system;
- · co-option of radical proposals by the major parties,
- geographical mobility of workers;
- possession of the right to vote before the industrial revolution began;
- the higher standard of living of American workers;
 the success of American capitalism
- occupational mobility of native-born workers;
- intentions of many foreign-born workers to return to the old country;

- ethnic diversity in the labor force;
- · American individualism;
- · American equalitarianism;
- · mistrust of government; and
- · American pragmatism.

Which were the most important factors'? Frankly, I cannot say. Eric Foner, after considering almost as many factors as those I have briefly summarized, noted that each of the proposed explanations for the absence of socialism in the United States had a degree of merit. He contended, however, that "we [cannot] simply add them all together in a kind of mixed salad and feel satisfied with the result." Yet, the "mixed salad" is the only explanation which incorporates all the complexities and subtleties of American labor history. An intellectual mixed salad may not seem satisfying but it may, all the same, do the most justice to the evidence. No one factor is an explanation by itself, nor for that matter is any limited group of factors a total explanation. As Seymour Martin Lipset has said, "Even when looking at the history of American radicalism in a comparative context, it is impossible to determine which of the many factors has been the most important, how much each explains..."

History certainly is complicated, isn't it'?