

International Society
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Volume 43

Number 4

TRANSFORMATIVE LAW

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Stephen Lewis

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TRANSFORMATIVE LAW†

Rachel F. Moran*

In 2010, the Association of American Law Schools will be meeting in New Orleans for the first time since Hurricane Katrina forced the relocation of our 2006 Annual Meeting. During my Presidential year, I am adopting the theme of “Transformative Law,” mindful of the symbolic significance of our return there as well as of the successes and failures of the legal profession in addressing this perilous past decade. Our meeting this year takes place at a time of crisis in our economy, our ecology, and our international standing as the leader of the free world. Many lawyers (including our President, Vice-President, and many Cabinet officials and congressional leaders) must tackle these challenges. Media coverage of their efforts, however, portrays these public servants as people who happen to be lawyers, not as lawyers whose leadership grows out of their mastery of law and whose accomplishments represent the pinnacle of their professional pursuits. To a significant degree, the news accounts reflect the fact that these leaders have not pursued a traditional law firm practice but instead have devoted themselves to government and public service. The image of the citizen-lawyer, whose training can be used to advance the common good, has so thoroughly disappeared from the popular imagination that those who pursue this path are no longer centrally defined as lawyers.

Contrast today’s portrayals to those of fifty years ago, when the word “lawyer” might conjure up images of crusaders in the civil rights movement. Or, compare these images to those of an even earlier era, when attorneys entered public life as architects of the New Deal. When citizen-lawyers embarked on these campaigns for change, the result was transformative law. By this, I mean that law became a powerful tool to challenge and reconfigure social institutions. Transformative law can take place at the national, state, or local level. Challenges can come through landmark Supreme Court decisions like *Brown v. Board of Education*, which forced the nation to reconsider the meaning of racial equality. Or, change can be the product of ground-breaking statutes and administrative action, as the battle for the New Deal that President Franklin Delano Roosevelt waged with a reluctant Supreme Court reminds us. Whatever the forum, citizen-lawyers have produced transformative law because they understood their professional role as integral to achieving the American dream.

† Reprinted, with permission, from the May 2009 Newsletter of the Association of American Law Schools. “Transformative Law” is the theme of the Association’s 2010 Annual Meeting.

* President, Association of American Law Schools; Robert D. and Leslie-Kay Raven Professor of Law, University of California, Berkeley.

Today, when lawyers receive attention as lawyers, they are more likely to be defending the notorious than building the nation. Is there no greater role for lawyers as professionals in our contemporary public life? Is the citizen-lawyer now largely relegated to some lost golden age of reform? I believe that law still has a vital role to play at moments of national crisis like this one, but we must once again recognize that lawyers can be powerful agents of change and not merely advocates for agendas set by someone else. We, as members of a learned society, can play a critical role in resurrecting the citizen-lawyer and the possibilities for transformative law. In fact, the current crisis of confidence in our country provides an unparalleled opportunity for lawyers to answer the call of service and restore a sense of integrity and trust.

MOVING TOWARD A HEALTHY AFRICA†

Stephen Lewis*

I knew I would speak to you about the continent of Africa in a variety of ways, but I was searching for a context which would make it vaguely coherent. It occurred to me that what I'd like to do is remind you of what are called the Millennium Development Goals and apply them to the continent. That will allow us to see what is required to bring that continent back to a position of reasonable health.

MILLENNIUM DEVELOPMENT GOALS

The Millennium Development Goals emerged, of course, from the Millennium General Assembly of the United Nations in the year 2000, an assembly which originally was intended to be a kind of orgy of triumphalism for globalization. As the 1990s evolved, though, it was recognized that globalization had severe limits; while it might usher in some reasonable international technological ascendance, and it might produce greater cultural harmony, there were many things which globalization didn't seem to be able to address. It couldn't handle poverty, it couldn't handle disease, it couldn't handle conflict, and it wasn't handling the environment. Therefore, there had to be some new arrangement internationally where the excruciating differences between the developed countries on the one hand and developing countries on the other could be bridged and a new set of targets could be put in place. Thus, the eight Millennium Development Goals, intended to be implemented by the year 2015, were established.

I thought what I might do here, if I may—and it strikes me that there's not much you can do about it—is take a look at those eight Millennium Development Goals. As I go through the eight Millennium goals, I will talk about their particular application to Africa. In this way, I hope to evolve a narrative which makes sense by the time I reach the finale.

Hunger and Poverty

The first Millennium Development Goal is to cut the most extreme levels of hunger and poverty in half by the year 2015. What you have in Africa is several hundred million people living on less than a dollar a day. A substan-

†Address delivered at the Annual Convention of the International Society of Barristers, Four Seasons Resort Maui, Wailea, Hawaii, March 14, 2008.

*Co-Director, AIDS-Free World; former Canadian Ambassador to the United Nations; former UN Secretary-General Kofi Annan's Special Envoy for HIV/AIDS in Africa; author of RACE AGAINST TIME.

tial income is something like seven hundred fifty dollars a year. The poverty is absolutely overwhelming, and in many parts of the continent, particularly the parts besieged by the triad of communicable diseases—AIDS, tuberculosis, and malaria—it gets worse and worse.

The levels of hunger are heartbreaking. Although I've loved the continent for forty-eight years now and have gone back and forth on a regular basis, I can't get over the depth of hunger. When I meet with groups of people who are living with the HIV/AIDS virus, I ask them what they want, always expecting them to say, "Drugs." They never say drugs. They invariably say, "Food." Everyone is hungry. And one of the most concerning truths about Africa at the moment is that the World Food Program, which is the primary international institution which delivers food in areas of underdevelopment when people are impoverished and stricken by famine, simply has neither the food nor the resources to meet the need. Thus it was that in Darfur, the rations were cut from two thousand to a thousand calories a day because the World Food Program didn't have the grain to deliver, nor the resources from the G-8 countries to compensate for the absence of the foodstuffs. Recently, in Mozambique, which was hit simultaneously by flooding and drought, the World Food Program had to cancel the entire program because it simply didn't have the food. And it recently noted that the situation is such that the lack will go far beyond the countries of extreme underdevelopment and will begin to strike countries as disparate as Thailand and Yemen and Mexico. This hunger, this intensity of poverty simply strangles societies and throws people into a dispossessed condition. It is an extraordinary tribute to the people of so many of these countries, particularly in southern Africa, that they have the resilience and the capacity to survive despite the assaults to the human condition.

Infant Mortality

The second Millennium Development Goal is to dramatically reduce infant mortality by the year 2015. Every year almost ten million children under the age of five die from preventable diseases—the majority of them on the continent of Africa. They don't die of exotic diseases. They die of acute respiratory infections like pneumonia. They die of dehydration and diarrhea. They die of malnutrition. Twenty-seven thousand young children a day. It's a commentary on the nature of international society that this state of affairs persists and that we allow it to persist. This is an extraordinary loss of life.

When I look at this issue in the area of HIV, with which I've been engaged for the last several years, there are over half a million cases a year, over ninety-five percent of them on the continent of Africa, of infants born HIV-positive, and they die an agonizing death. If they don't get antiretroviral treat-

ment virtually at the moment they're born, fifty percent of them die before the age of two and eighty percent of them die before the age of five. These are anguishing deaths, and they need not occur. There's not the slightest legitimate reason for this to be happening. We have drugs which can prevent it.

How do the children get infected? They get infected during the birthing process. An HIV-positive woman passes the virus to the child during the birthing process. But we have wonder drugs. One is called nevirapine. If you give one tablet to the mother while she's giving birth and you give the liquid equivalent to the child within seventy-two hours after birth, you cut the transmission by more than fifty percent. Hundreds of thousands of kids who would be born HIV-positive could be born HIV-negative and live full and productive lives. And if you combine nevirapine with the drug AZT, you can cut the infection rate by seventy to seventy-five percent. And if you put the mother on a full course of antiretroviral treatment for the bulk of her pregnancy, as we do in Canada, the United States, and western Europe, you can cut transmission by up to ninety-nine percent. And yet, only ten percent of all the HIV-positive pregnant women in Africa even have access to the drugs. Why is the life of an African child worth so much less than the life of a Western child? Why is it not possible to galvanize the international community to respond, when we're capable of so much intervention on other fronts?

Maternal Mortality

The third Millennium Development Goal is to cut maternal mortality rates dramatically by the year 2015. It is not often recognized that we have had a repetitive pattern in place for the last twenty-five years: More than half a million women die in childbirth every year, the great majority of them in Africa. We know everything there is to know about emergency obstetric intervention, we know about midwives, we know about birth attendants, we know how important it is to move a woman who is in difficulty in labor from a rural area into a district hospital; but we've never been able to reduce the carnage. Over half a million women dying in childbirth every year! Naturally, reduction of that became one of the Millennium Development Goals.

Education

The fourth Goal is to put every child of primary school age into primary school. One of the sad realities is that there are between seventy-seven million and a hundred million children of primary school age, the majority of them in Africa, who are not in school. Of course, sixty to sixty-five percent of them are girls, because girls always suffer the most discrimination. And when there is an illness or a difficulty in the family, it's the young girl who is yanked out of school to draw the water, to get the wood, to do the cooking,

to do the farming, to look after the sick and the dying in the household. These young girls are representatives of gender inequality, and it is a shameful and bitter experience to which they are subjected.

The biggest factor that prevents children from going to school is the school fees. The families can't afford to pay the school fees. They can't afford to pay for the uniforms or the textbooks; they can't pay the parent-teacher association fees or the examination fees. On this point, I have to go into a bit of a rant. For many, many years, there were no school fees in Africa. Then along came the World Bank and the International Monetary Fund in the 1980s and 1990s, and they applied the most reckless and perverse econometric design called "structural adjustment" programs, which dismantled the social sectors in many countries. And when the Bank would come to an African country—at that period of time often run by some kind of despot—its representatives would say, "We're willing to offer you a loan, but there are conditions attached, and one condition for the loan is that you have to apply user fees." So countries which wanted the money and hadn't ever imposed charges for hospital treatment suddenly were asking for fees in hospitals, and students who'd never had to pay fees for education suddenly had to pay school fees. Ten years later, the World Bank admitted publicly that the structural adjustment programs were wrong and were an idiotic construct that should not have been imposed; but the consequences linger. One consequence is that millions of children are out of school because they cannot afford the school fees.

You can't imagine what happens when a country eliminates school fees. Let's set aside the recent turbulence in Kenya. During the election campaign in 2002, the current president of Kenya, Mwai Kibaki, made a promise that he would eliminate primary school fees. In early 2003, after he was elected, he did just that. Within six weeks after abolition of the fees, 1.5 million children who had never been in school before—fully twenty percent of the school-age population—turned up at the doors of the schools in Kenya. It was absolutely extraordinary, and it demonstrated what is available in Africa if a more progressive and intelligent public policy is followed. There was slight overcrowding, and there was some need to accelerate teacher training; but it was an emancipation for the society as a whole and for the children who ached, almost in their molecular structure, with the yearning to go to school. It was just the loveliest thing imaginable to witness.

Gender Equality

The fifth area, which ties a little to the primary school experience of girls, is the effort to approximate gender equality. This is personal to me; I live in a feminist family, and I'm proud of it. During my adult life, I've always

believed that the women's movement has made a profound contribution to the improvement of social conditions and the achievement of social justice in a variety of areas. And I can't get over the damage that is done to women throughout the world, and particularly in the developing world, by the absurd and destructive injustice to which they are constantly subject. It doesn't matter whether it's female genital mutilation, or honor killings, or child brides, or the absence of laws against rape and sexual violence, or the absence of economic empowerment, or the absence of political representation, or the absence of property rights or inheritance rights—the whole panoply of discriminatory treatment visited on women with such a consistency is a manifestation of gender inequality that is absolutely intolerable, as I view it around this world. I am more and more persuaded in my own conviction that the single most important struggle on the face of the planet is the struggle for gender equality. You cannot continue to marginalize fifty-two percent of the world's population and ever approximate social justice or equality in a way which is meaningful.

I saw this time and time again in the field of HIV and AIDS. One of the problems in Africa is sexual violence, which is completely out of control. We all know that rape is a weapon of war. In the international criminal tribunals for Rwanda and the Balkans, people have been convicted for war crimes and crimes against humanity on the basis of overseeing rape and sexual violence. The first such conviction was of a fellow named Jean Paul Akayesu in Rwanda in 1998. And whether it's in Cambodia or East Timor or the Balkans or Colombia or Rwanda, it's absolutely staggering the extent to which sexual violence is used as a weapon of war.

In the Congo, it is so extreme that it is beyond the capacity of the mind to absorb. The war in the Congo, which has been going on since 1994, is a product of the escape of the genocidalists from Rwanda, courtesy of the governments of the United States and France, into Zaire, which is now the Democratic Republic of the Congo. After the genocide in Rwanda, a million of the genocidalists crossed the border and pursued their dreadful depredations in Zaire/the Congo. Between then and now, over five million people have died—the greatest toll in any war since the end of World War II. They haven't all died of bullets, of course; they've also died of cholera and other diseases, and of starvation. They've died of all the consequences of massive destabilization, as marauding groups of rebel and government forces have moved through the countryside. And rape is no longer a weapon of war; rape has become a strategy of war. The degrees of rape and sexual violence toward women are so extreme that they destabilize entire communities and entire societies; as they humiliate and degrade women, they destroy the entire social fabric.

In August of 2007, Eve Ensler, the remarkable writer and actor of the *Vagina Monologues*, went to eastern Congo, where she visited a little hospital called the Panzi Hospital in the town of Bukavu and stayed for a period of time. When she came back to North America, she wrote a piece for a major magazine, which then spread far and wide on the Internet. The first sentence was, "I have just returned from hell." I do not have sufficient emotional equanimity to relate to you the individual stories Eve Ensler relayed, but we're not just talking about gang raping of two-year-olds, which exists, and gang raping of eighty-year-olds, which occurs. We're talking about mutilation and amputation and the use of knives and the use of guns—guns shot into the vaginas of women after terrible sexual violence. Do you know there is a medical term of art in the Congo called "vaginal destruction"? And at the Panzi Hospital in Bukavu, a remarkable African doctor named Denis Mukwege and his staff try desperately to repair the reproductive organs of the women who have been so destroyed by what has taken place.

I relate this to you because the world knows about this and does absolutely nothing. It reminds me of the one hundred days between April 6, 1994, and mid-July of the same year, when eight hundred thousand people in Rwanda were slaughtered in the full light of the world, and the world raised not a finger. After that, everybody said, "Never again." Then along came Darfur. We have seen four years of what we call genocide in Darfur, and it is getting worse; and somehow the world, capable of so much in so many places, is unable to subdue people on horseback. This is not the Taliban. The Darfur situation is manageable, but the world has not managed to do anything. And now the same seems to be true in the Congo.

After Eve Ensler returned and wrote her story, the Under-Secretary-General for Humanitarian Affairs went to the Congo. When he returned, he wrote an op-ed for the *Los Angeles Times*, which said that the Congo was the worst place in the world for women. The European Parliament passed a resolution that decried what its press release called "war against women" in the Congo. Front page stories appeared in the *New York Times*, the *Washington Post*, and the *Los Angeles Times*; CNN's Anderson Cooper did a twenty-minute segment on *60 Minutes* about the Congo, from the Congo; and Eve Ensler testified twice before the Security Council. The Security Council then wrote strong provisions into the renewal authorization of the United Nations force in the Congo, asking them to protect the women from rape and sexual violence. And there is a so-called peace agreement, with many articles and many pages—but the word "rape" appears nowhere, the words "sexual violence" appear nowhere, and the word "women" appears once, in conjunction with children, the elderly, and the disabled. It's as though the people in the field haven't the faintest idea of what is being said by governments at the Secu-

rity Council, and nothing changes. If the continent of Africa is to come through the present intermittent turmoil and geographic turmoil, the world has to respond.

I guess I find it hard to understand the predatory and berserk male behavior in situations of destabilization, violence, and conflict. I didn't intend to do this, but let me relate an anecdote that had a deep impact on my own thinking and views. After the Rwandan genocide, I worked for two years with a panel struck by the Organization of African Unity to investigate the genocide and surrounding events. It was a very good panel. There were seven of us, four Africans and three non-Africans. The president of the panel was the former president of Botswana; the current president of Mali was on the panel; and the current president of Liberia—the first woman president anywhere in Africa—Ellen Johnson-Sirleaf was on the panel. We visited all of the commemorative sites, and we interviewed hundreds of survivors. It just tears your heart out to revisit the depravity and the dementia to which human beings seem, from time to time, to descend.

At one point we visited a center in Kigali called the Polyclinic of Hope, where several hundred women who had been raped during the genocide gathered to network and to seek solace from each other. After we had met with a large group of the women, the leader of the group said to us, "Would any of you be willing to meet with three women in an adjacent room? They want to talk separately to the panel." Three of us went into a little adjacent room. I'll never forget it. It was an intolerably hot, tiny room. There were three metal cots in the room, and a woman on each cot. On the first cot was a young woman—she must have been in her late teens or early twenties—who had been gang-raped on several occasions, and blunt and sharp objects had been thrust into her vagina to cause her as much pain as possible. She was HIV-positive, and she saw no reason for living, and said so. She died two years later of full-blown AIDS. The second woman, who must have been in her thirties, was very feisty. She said to us, "People are always asking us to forgive and forget, but I'm not going to forgive and forget because no one who did this to me has shown any remorse whatsoever. I look out my window in the morning, and I see the men who raped me walking casually to work." The third woman was a woman of immense dignity. She was in her forties. She spoke to us with an intensity of feeling which is difficult to convey. She had been chained to a bed and used as a perpetual rape machine for three months. She said, "Whether I'm in the fields, or whether I'm at home, or whether I'm at market, I can never get the smell of semen out of my nostrils." I thought, as I looked at this lovely woman, "Has the world gone mad? How is this possible? How do we allow these things to happen? How are we capable of so much humanitarian intervention, which is well-motivated and

compassionate and decent, and yet let the most intolerable abuses of human kind persist?" That's what's happening now in the Congo, and the world is not yet galvanized.

HIV/AIDS

The sixth Millennium Development Goal, which I will try not to dwell on extensively, partly because my life has been so consumed by it, is to reduce dramatically the impact of HIV and AIDS by the year 2015. What I *will* tell you, because I want to take a slightly different slant on it, is that we finally have some treatment, of antiretroviral drugs, rolling out, thanks to the Clinton Foundation. The brand-name pharmaceutical companies resisted over and over again all pleas and pressure to bring their prices down. The Clinton Foundation went to India and negotiated dramatic reductions in drug prices from the generic companies. The drugs are absolutely equivalent to the brand-name drugs; they're approved by the World Health Organization. They are available at prices which governments can afford, and the governments in Africa are beginning to roll out the treatment. It's pathetically incremental and slow, reaching maybe two million people of the eight million who need it, and many will not be reached in time; but at least treatment is being rolled out. We also have discovered pediatric formulations, if we can roll them out.

We're working incredibly hard on prevention. There is a tenacious effort to discover a vaccine, but we had serious setbacks in 2007, so a vaccine is probably ten years off. There is an equivalent effort to discover a microbicide, which is a gel or a foam or a cream vaginally applied by the woman to prevent transmission; but we've had a couple of setbacks on microbicides, and they are several years off. Interestingly enough, the most dramatic advance in preventive technology in the last couple of years is male circumcision. Three studies in Uganda, Kenya, and South Africa have shown that circumcised men have a sixty percent lower rate of infection—a *sixty percent* reduction in infection if you're circumcised. So a number of countries now, from Rwanda to Swaziland, are doing adult male circumcision in a serious way in order to reduce the possibilities of infection.

I remember when I was in Zambia, in the copper belt, meeting with the District Health Commissioner and his staff. The Commissioner was telling me of the good things they were doing, and he said, right in the middle of the meeting, "Mr. Lewis, I want to tell you proudly that in our little corner of the copper belt, the prevalence rates of HIV and AIDS are low because we're circumcised. All around us, the rates are very high because the men are not circumcised." There was a bit of a titter and some restrained applause, so I felt it was obviously the right time to say that I was circumcised, and I did. There followed an orgy of male bonding, the like of which I had never before expe-

rienced. I'd never been hugged and embraced with such fervor in my adult life. It showed me that Africa is very aware of every aspect of the pandemic and working valiantly to overcome it but faces difficult odds.

The one thing which everyone seems not to have planned for or even thought of in advance—and this is really inexplicable—is the children left behind. When you have such an astonishingly pervasive environment of death, you have millions upon millions of orphaned children. In country after country, there are more than a million orphans. And these orphan children are so traumatized and so bewildered by what's happened. I can't tell you how many huts I have visited because people want me to see what they call home-based care, where children are looking after those who are struggling with the virus. As I enter the hut, it's always the same scene: a spectral, emaciated figure on the earthen floor, covered by a fetid cloth, and it's almost always the mother in the last throes of an AIDS-related illness. Her little children are frantically running through the village to find an aspirin to reduce the pain of an opportunistic infection, or they're trying to find a wet cloth to wipe the brow of the mother, or they're cleaning up the mother when she's incontinent—and you can't imagine a more humiliating experience between mother and child. Then they stand in the hut and watch their mother die. Five-year-olds, three-year-olds, ten-year-olds watch their mothers die and then are completely bewildered by this sudden rupture of the anchor of life. The communities try desperately to absorb them, but the communities are too poor. The extended family would absorb them, but the extended family is also decimated by the virus.

So who emerges as the unsung heroes of the continent? The grandmothers. The grandmothers bury their own adult children, and then they look after three, five, ten, fifteen orphaned grandchildren. It's absolutely unbelievable. It's a manifestation of resilience, and courage, and determination, and love, the like of which we've never seen. There is no historical precedent for this; it's as though we were reconstructing the human family. Not even in the days of the black death in the fourteenth century did you have this kind of dynamic. And these grannies, many of whom are themselves infected, are so old that they have a subterranean fear of what will happen to the kids when they die. And yet they are really holding the societies together. It is something to witness. They require support and they don't have enough support. What does happen to the kids when they die? The oldest child in the family becomes the head of the family.

I was in Uganda not all that long ago, traveling with a woman named Graça Machel. She was the former Minister of Education in Mozambique and the former First Lady of Mozambique, married to Samora Machel until he died in a 1989 plane crash that undoubtedly was an assassination orches-

trated by the apartheid government of South Africa. She's now married to Nelson Mandela, and she is an astonishingly charismatic, intelligent, and generous person. We were in Uganda to look at what was happening to women and children. We met a group of villagers who begged us to visit a child-headed household, so of course we agreed. They took us to a household of five children: three little girls, aged fourteen, twelve, and ten, and two little boys, aged eleven and eight. As we entered the hut, Graça shooed out all of the hangers-on, until we were left with one translator and one community village worker. Graça sat down against the wall of the hut, with her right arm around the three little girls, and I sat down with my left arm around the two little boys. I had no idea what was coming. Graça looked at the two older girls and said, very gently, "Have you started to menstruate yet?" Those two little girls, in the shy, whispered voices of African children, said, "Yes." Graça said, "Do you know what it means? Do you talk to the villagers about it, do you talk to the other children about it, do you talk to your teachers about it?" As I sat there, listening, I realized that I was witnessing the first act of *mothering* those young girls had ever received on one of the most transformative experiences of a girl's life. And I suddenly understood that one of the things we take for granted, the transfer of knowledge and values and views and expertise from one generation to another, is gone in this dreadful situation. These little kids are fending for themselves because we've lost an entire generation along the way.

I want to return to the fourteen-year-old girl in the hut with Graça and me, the child who is the head of the family. When we were leaving, I said to her, "Who puts you to bed at night?" She said, "I put us to bed at night." I said, "Yes, but it's dark and scary. Does anybody come in?" She looked at me, defiantly, almost belligerently, and said, "I am the mother. *I* put us to bed at night."

Environment

The seventh Millennium Development Goal is to achieve a sustainable environment. All I will say about that is that, ironically, the adverse effects of climate change and global warming are going to strike most fiercely at the southern part of the African continent, as the Intergovernmental Panel on Climate Change has made clear. This will add to the incredible stress and siege under which the African people exist. It is predicted that there will be further famines because of drought, and probably conflicts over water. All of that is bad enough, and it is compounded by the fact that we are turning productive agricultural land over to the production of corn and soybeans used for biofuels, in order to reduce carbon discharge into the environment. That means we are losing the food from the productive land, which normally goes to the developing countries when they're in stress. The European Union and others are raising

serious questions about whether the biofuels obsession will further compromise and sabotage the futures of people in the developing world.

Partnership Between Developed and Developing Countries

The last Millennium Development Goal is to forge a partnership between the developed and the developing world, such that the developed countries deliver on their promises rather than betraying them virtually the moment that they're made. That's a fundamental problem. Africa has enormous capacity, but if it is to come back to health, it has to have a fair international trading regimen, it has to have many of the inappropriate and odious debts canceled, and it must have an adequate flow of foreign aid. Time after time at G-8 summits, commitments are made which are immediately dishonored. I'll never understand why heads of state enter into commitments only to discard them precipitously. Even Gordon Brown, the Prime Minister of the United Kingdom, in his first-ever speech at the United Nations on July 31, 2007, said to the world:

We cannot allow our promises that became pledges to descend into just aspirations, and then wishful thinking, and then only words that symbolize broken promises.

We did not make the commitment to the Millennium Development Goals only for us to be remembered as the generation that betrayed promises rather than honored them and undermined trust that promises can ever be kept.

Yes, there are corrupt governments in Africa (Zimbabwe, Kenya, Nigeria, and Sudan), but I beg you to recognize that there are fifty-three sub-Saharan African countries, and the great majority of them are now democracies, and *re-elected* democracies. And in the countries where there is corruption, people are working hard to overcome it. Please give them a little more time, and don't abandon them, when they're showing great courage in the face of great adversity. At the grassroots of the continent, we see tremendous intelligence, sophistication, caring, camaraderie, human decency, and a great capacity to turn things around if the international community will offer assistance—*not* neocolonial assistance, but the direct technical assistance and funds that will make the difference.

MY TURNING POINT

What was the turning point for me? It occurred in 2003. I was going through the pediatric ward of the university teaching hospital in Lusaka, the capital of Zambia. There were five and six infants on each cot, all of them

suffering from a combination of HIV and malnutrition. As I moved through the ward, there was suddenly a terrifying shriek which reverberated through the ward, and I whirled around toward the source. There was a young mother on her knees beside a cot, weeping inconsolably, while the nurse came over with a white sheet and covered the infant and took the babe away. Every ten minutes of my visit, another child died and another mother wept. It's unconscionable, because it's unnecessary. We have drugs to keep people alive, and we have the resources to respond. I've always believed that the struggle for social justice and equality is why we're on this planet, and the HIV/AIDS struggle has become my special focus. It's a privilege to be here this morning and to be able to say this to you.

QUESTION AND ANSWER, AND AN APPEAL

Q: If you could say three things to the new President of the United States, what would they be?

A: I think I would say, first, that the most important thing for the United States to do internationally, on the development side, is to increase its foreign aid to the target which has been embraced by all the Western nations—0.7% of gross national product. That's a target which France will reach in 2012, the UK in 2013, and Germany and Italy in 2015. My own country, alas, is terribly delinquent, even though we were the architects of the target; but the United States and Japan are the two countries of the G-8 that are at the lowest end of the scale. The United States is way behind even the average of the OECD countries. All of the major economists—particularly Jeffrey Sachs of Columbia University—have indicated that if we did reach the point-seven target, we could meet all of the Millennium Goals for all of the beleaguered countries of the world.

Next, I would ask the United States to orchestrate an end to the intolerable situations in Darfur and the Congo, which the United States, by virtue of its astonishing leadership, can, in fact, do. What's stopping us in Darfur is the absence of logistical support and the financial resources to bring in sufficient numbers of African Union troops to cope with the situation. What's lacking in the Congo is simply the resolve of a mighty nation taking it on and decreeing that it is coming to an end. We also need to be sure that those responsible do not have impunity. We need to bring everyone we can get our hands on before the International Criminal Court and prosecute them for war crimes, crimes against humanity, and genocide. That would have an extraordinary impact.

Third, I would beg the new President to reallocate resources. The United States is now spending fifteen billion dollars a month on the war in Iraq.

We've never come close to that in one *year* to deal with the pandemic which has taken twenty-six million lives and has thirty-three million people in its grip. Something has to be done about the disproportionate allocation of funds. Joseph Stiglitz, the United States Nobel economist, has written a book and a number of op-ed columns indicating that he thinks the total cost of the Iraq war, including the ongoing treatment of those who were injured, mentally as well as physically, is going to end up in the vicinity of three trillion dollars. Everyone laughed at that figure five years ago, but no one is laughing now. My feeling is that the United States has to get out of Iraq and start directing its resources elsewhere.

In conclusion, may I be so bold as to say that we have a great need for assistance, if there is anyone who is interested in being at all involved. We have pro bono assistance from a number of law firms, who will help in pursuing some quite fascinating human rights and other International Criminal Court cases with us, and we could use more. If any of you in the domain of the law are interested or could help us in other ways, please let me know.

NEW INSIGHTS INTO ALS, ALZHEIMER'S, AND PARKINSON'S DISEASE FROM ETHNOBOTANY†

Paul A. Cox*

Let me start with a few quick definitions. “Ethno” refers to the study of indigenous peoples. “Ethnobotany” is the study of the use of plants by indigenous peoples, and “ethnomedicine” is the study of the healing practices of indigenous people. And at the research center for our Institute for EthnoMedicine, in Jackson Hole, we search for new cures by studying patterns of wellness and disease among indigenous people. I want to illustrate both of those for you this morning.

Carl Linnaeus, the founder of ethnobotany, raised an interesting question—how many species are there on earth? If we look at plants and animals, from the eukaryote through redwoods and elephants, we find perhaps five to fifteen million species, estimated. If we look at bacteria, work by Craig Venter suggests that there might be over a billion species. And in 1977, we discovered in the Galapagos Rift an entirely new type of life, organisms that live in deep-sea vents, that give us perhaps another billion species. All of these species produce bioactive molecules, some of which are useful as medicine. A key question is how we can best find the new medicines.

What is amazing is that, given the billions of species and all the molecules they produce, we can synthesize only forty percent of those molecules. Sixty percent of the natural molecules produced by plants and animals elude even our greatest chemists. Fifty percent of the pharmaceuticals in our drug stores come directly from biodiversity. People don't realize this; they don't realize that the digitalis they take, or the quinine, or almost any medicine stems originally from plants, often used by indigenous peoples. Worldwide, eighty-five percent of the world's people depend directly on plants for medicine.

My job as an ethnobotanist is to go around the world and try to figure out which plants are therapy and which plants are threat. I'm always amused when people say, “Oh, it's natural, so it must be safe.” I spent many years studying blowgun poisons, and I studied a little tide pool in Hana that has the world's most toxic compound, second only to botulism. Those are natural. So some natural substances are threats, and some are therapies. How do we best tell? I believe that the indigenous people themselves possess these

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answers, which is why ethnobotany is useful as a way to discover new therapies and threats.

DISCOVERY OF A NEW THERAPY

After my mother died of breast cancer in the early 1980s, my family and I got out a map, found the most remote island and village in Samoa, and went and lived for a year in a little hut without running water or electricity so I could study with the healer in the village. I wanted to try to learn everything she knew, in a desperate attempt to see if she had any treatments for breast cancer. She didn't have anything for that, but I learned some amazing things from her.

First of all, I learned how incredibly humane the people were. The movies, frankly, lie to you. Indigenous people are not creepy or scary. People always ask me if I'm frightened when I'm getting ready to go to some "undeveloped" country, and my answer is: "Yes, I'm terrified every time I have to go through security in the airport; but once I'm sitting with the indigenous people, I'm fine." I've always been treated with kindness and respect, although also some giggles.

The idea is very simple. We use ethnobotany—the knowledge of the indigenous people about the plants—to identify which plants merit study. We prepare the samples very carefully, the way the healers do. We then use what we call bioassay-guided fractionation; we study carefully how the plant extract impacts the target disease, and fractionate the extract to get a purer and purer compound. Then we use chromatographic techniques to identify its structure. If all of this works out, the next step is to generate what we call lead compounds. These are compounds of known molecular structure and known activity. We turn these over to the National Cancer Institute or to pharmaceutical firms for the development of pharmaceuticals.

Let me give you an example. There is a plant that the Samoans call mamala. It's in the poinsettia family, and the Latin binomial is *Homalanthus nutans*. I was really quite staggered when the healers told me that they could use samples of this bark to cure hepatitis with one or two doses. (They didn't say "hepatitis"; they gave me the signs and symptoms—fever, jaundice, hemorrhaging—so I wrote in my notebook "acute viral syndrome." Later we drew blood and determined that they were treating hepatitis.) The healer scraped the bark of the plant into a teabag and had the patient drink the tea, and the patient was cured. These healers were extremely humble—they didn't make outrageous claims—so I was immediately interested and contacted my colleagues at NIH in Bethesda, Maryland. I sent samples, and during the testing process, the National Cancer Institute ran the samples I sent against

HIV-1. Thus, a new AIDS drug, now called prostratin, was discovered and is under development. The status is that it's completely clearing baboons of the virus—not just stopping the virus, but clearing it—and it's entering human clinical trials now, in Los Angeles.

When I got the patent papers, the government lawyers wanted me to sign an affidavit that I had actually invented prostratin. And I said, "No. I didn't invent it. If anybody did, the healers who taught me did, but they were taught by their mothers and grandmothers, and I'm just the guy with the notebook." Then I said, "It seems to me that the Samoan people as a whole own this intellectual property, and I'm not signing anything until I see that their rights are protected." The intellectual property lawyers were aghast. They said, "Do you want us to put a witch doctor on a patent?" I said, "Of course." Fortunately, the government stood behind me and said, "If you patent this, we will require any pharmaceutical firm to negotiate a fair and equitable return to the people." The AIDS Research Alliance, which is developing the drug, negotiated this with the Samoan people: Twelve and a half percent of the profits from prostratin will be returned to the Samoan government; 6.7% will go to the village that housed us and let us do our work; and 0.4% will go to each of the families of the two healers who taught me how to use this. Thus, twenty percent of the prostratin profits will go to Samoa. Apparently, this was big news; it even hit *The Financial Times*.

Now there's so much interest in prostratin that people fear there will never be enough plants to produce enough drug if it's approved by the FDA. So a team at UC Berkeley, funded by the Bill and Melinda Gates Foundation and led by Jay Keasling, asked me if they could clone the gene; their goal is take the genes from prostratin, insert them into bacteria, and then have the bacteria produce the drug. I said, "Well, you're going to have to do the same thing the intellectual property lawyers did. You're going to have to come down to Samoa and learn how to wear a skirt while remaining modest when sitting crossed-legged on a mat, eat a fish head, listen to the old ladies, and drink ceremonial kava. Then, if and only if they approve, you might have a dog in this race." They met the challenge.

What was so thrilling to me was that Samoa asserted national sovereignty over the gene sequence, which they were allowed to do under their reading of the Convention on Biological Diversity, and the Chancellor of UC Berkeley immediately accepted that assertion of sovereignty. As a result, fifty percent of all the proceeds of the genetically engineered drug will go back to the people of Samoa and be distributed. This is the first recognition of indigenous rights to a gene sequence. A lot of indigenous people are excited.

To make sure everyone understood what was going on, though, we had to

inform the villagers, so we took a PowerPoint projector with a generator, hung sheets up, and taught the villagers about genetic engineering. The chief said, "This is great; we want our kids to learn this." That became part of the agreement. We actually have Samoans in Berkeley, learning how to do DNA work. Also, all of the samples going from Samoa to Berkeley travel in diplomatic pouches, as sovereign soil of Samoa.

BIOCHEMICAL THREATS

That was the positive side of ethnobotany. I want to spend the rest of my time on biochemical threats, particularly those that lead to Alzheimer's, ALS, and Parkinson's disease. Once the prostratin project was safely in more competent hands, I wanted to find another project, especially one that might help people suffering from terrible disease. This led me to an interest in neurodegenerative illness—ALS, Alzheimer's. This time I needed to look for patterns of disease.

I learned that people of a certain group have one hundred times the average rate of ALS and Alzheimer's in the world. This took me to the Chamorro people of the Mariana Islands, to a village in the southern part of Guam that is the epicenter of neurodegeneration on the planet. I have not met a single family in this village where somebody is not deeply impaired. One lady I met had lost her husband, her parents, and all of her brothers and sisters; and her son was showing symptoms of ALS, a totally devastating disease. In this village, neurodegenerative disease is the leading cause of adult death. Sometimes it presents as ALS, sometimes it's Alzheimer's, sometimes it's Parkinson's, and for a few unfortunate people it's all three.

What could be causing this? Previous work had suggested that there might be a relationship to the cycad tree. We got very interested in this because, as a botanist, I knew that this tree not only sends roots down but also has roots that grow upward. When you cut into a root with your pocket knife, you see a little green circle. That little green circle is cyanobacteria. We cultured a number of those in the laboratory and discovered that they produce a potent neurotoxin called BMAA. We thought perhaps this BMAA accumulates in the seeds of the tree, which the people use for their tortillas.

Working in the village, we discovered something even more remarkable: Not only do the people get BMAA from the cycad flour tortillas and dumplings that they love to make, but they also love to eat large bats called flying foxes, which eat the cycad seeds. (In fact, the people eat the entire bat, even the fur, skull, and bones. The people, of course, know that foreigners think this is disgusting; but as ethnobotanists, we're trained to smile and say, "May I have seconds, please?") We decided to study these bats, and discov-

ered that a single bat contains a neurotoxic dose equivalent to one hundred kilograms of cycad flour.

I was nervous about publishing this information. When I was back in Kauai, a nice person came to our garden and noticed a cycad tree. We told her the story about the Chamorros, and she asked, "Have you talked to Oliver Sacks about this?" Oliver Sacks is a world-famous neurologist, and I told her that I couldn't just call him. Our nice visitor, who happened to be Marsha Williams, then married to Robin Williams, said, "Well, my husband played him in this movie, *Awakenings*." The next week I got a letter from Sacks saying, "Come see me in New York. Marsha Williams says you have something wonderful to tell me."

I went out there, with great trepidation, and met with Oliver Sacks. After he listened to me, he called in his research assistant and said, "This guy solved the Guam problem." I said, "If you really believe that, will you publish with me?" Our first paper came out in *Neurology* in 2002, and it created a bit of a firestorm in the neurology community.

Our big question was whether our findings in Guam had any broader applicability. I started training myself in ALS. It is an interesting disease. One out of every 500 Americans die from this disease. The average survival from diagnosis is 2.2 years. Your first clue is that you can't turn the ignition key in your car or the door knob, or you have a foot drop, or maybe your speech is a little slurred. It is a progressive disease, so it gets worse, worse, worse. There's no known cause. Five percent of ALS is familial, and a few genes have been identified, but we don't yet know how they work. Ninety-five percent is sporadic, and there's no effective treatment.

We first wanted to examine whether BMAA could trigger ALS outside of Guam. This meant, of course, that we had to determine whether BMAA occurs outside of Guam, so we got cyanobacterial cultures from all around the world. We looked at thirty different cultures—and ninety-five percent of them produced BMAA. And cyanobacteria grow *everywhere*. Here's a sample that just came out of Kaneohe Bay in Oahu. We've shown, through using five different chemical techniques, that this stuff produces BMAA.

We asked the people at NASA if we could get some satellite photographs, and they were happy to help us. (What great guys! They have all this equipment floating around up there, and they don't know what to do with it, so if you call them and say, "Hey, could you take a picture?," they're thrilled.) They took a picture over Hawaii, and we saw a cyanobacterial bloom several thousand miles in diameter. I sent a couple of graduate students out immediately, to get a sample. The students came back with what looked like pea soup in a flask, and they said, "By the way, we saw a bunch of dead whales and dolphins up there." So now we're working with Miami Univer-

sity's Rosenstiel School of Marine and Atmospheric Science. We're wondering if beached whales have Alzheimer's and can't find their way home, so we're collecting every beached dolphin and every beached whale in Florida and doing neuroanatomy studies, to look at the BMAA levels. (The NASA satellite also took a picture over Florida and showed a big cyanobacterial bloom there.)

We next went to Great Britain and tested twelve major water supplies. We went during the summer when the water has that blue-green stuff floating on top. (You've all seen cyanobacteria, in your water traps.) Every single one of the twelve water supplies had the neurotoxin in it. So millions of people in the UK are being dosed.

The next issue we pursued was whether BMAA targets motor neurons, the ones that affect your ability to move. So, with the gifted neurologist John Weiss at UC Irvine and some neurotoxicologists, we started looking at how BMAA causes disease. First of all, we discovered that it's a bizarre amino acid that can insert itself right into a protein, and it causes protein tangles. It collapses proteins. If you insert a bad amino acid into a neuroprotein, it kinks it, which messes up your brain. Secondly, we found that it directly kills motor neurons at very low levels. Weiss found that BMAA hit the AMPA and NMDA receptors, which are the glutamate receptors. (These are the receptors that MSG hits. You've heard of people who go into convulsions after they have a Chinese dinner because they're sensitive to MSG.)

Suddenly, some of our observations made a lot of sense to us. The Chamorros, when we talked to them about eating the bats, would say, "These things taste like nothing you've ever eaten in your life." They would start salivating during our interviews. As good anthropologists, we asked, "How much would you sell one for?" They said, "You'd be crazy to sell one. You wouldn't sell it; you'd eat it. People would try to take it away from you." To evidence this "addiction," I recorded, in two separate interviews, Chamorros who have gone to the only remaining flying fox colony. They ate one species into extinction. There are fifty of the other species left on Andersen Air Force Base, which is a strategic air command base. It has B-1 bombers and nuclear weapons bunkers. My two interviews were of Chamorros who took their little rifles, went over the security fence and under the wing of a B-1 bomber and around a nuclear weapon bunker, shot a bat, grabbed it, ran back around the nuclear weapon bunker and under the wing, and climbed back over the security fence. This proved to me that either our much vaunted homeland security still isn't up to snuff or these people have an insatiable appetite for BMAA products.

Another piece of the puzzle was found in patients outside of Guam. Our idea was this: A person gets the amino acid from bad water or a bat or other

source, and ninety percent of it is inserted right into his neuroproteins. Then, over years and decades, the stored amino acid trickles out and slowly toasts his motor-neuron system. He carries within himself a reservoir of death. To test this, we wanted to examine brain tissues of Chamorros who've died of the disease, and we needed control samples. For our controls, we went to Canada, people who were far away from cycad trees and flying-bat delicacies. We got people who had died of heart attacks, car wrecks, and other causes not involving neurodegeneration. In fourteen control patients, we could not detect any BMAA. The Chamorro brain tissues had massive amounts. And one asymptomatic Chamorro also had quite a bit, so he might have gone on to develop a disease. Then—and this was the biggest shock of my life—we looked at nine Alzheimer's patients from Canada, and eight of the nine had BMAA in their neuroproteins. These were people who had never been near Guam or a cycad tree or a bat. One person didn't have it, but all the others did. A result like this sparks attention, and when we published the results in the journal *Proceedings of the National Academy of Sciences* ("PNAS"), again there was a firestorm of press and diverse reactions from neurologists.

What you really want is another team to replicate your findings. The best folks in the business are at the University of Miami's Miller School of Medicine. In the neurology department, Professor Deborah Mash, who ran the Miami Brain and Tissue Bank, and Professor Walter Bradley, the top ALS researcher in the world, took brain tissue from thirteen ALS patients, twelve Alzheimer's patients, and twelve age-and-gender matched controls. We weren't within 2,000 miles of their lab. We trained them on the techniques and let them do their work independently. Their results: BMAA was not detectable in the controls. There was a little bit in one sixty-eight-year-old male, and a little bit in one eighty-five-year-old female, but the levels were so low as to be considered not detectable. The Alzheimer's patients, from Miami, all had BMAA in their brains. Not only that, but the levels we measured in Canadian Alzheimer's patients were almost spot on with the levels they found in Miami patients. Also, every single ALS patient that they tested in Miami had this neurotoxin. These results are being published in *PNAS*.

Needless to say, we are excited. We haven't *proved* that BMAA triggers the diseases, but there certainly is a statistical association that is extremely interesting.

Bradley, who wrote a neurology textbook that is used by neurologists all over the world, said to me, "I think what you do is really cool." I said, "If you really mean that, let's get on a plane together and go to every ALS hot spot in the world. An ethnobotanist and a neurologist working together—let's see what happens." So we went to Japan, China, Oman, Qatar, Dubai, and

Italy, and then ended our trip in Stockholm. I will go through this quickly, to conclude.

In Japan, we worked in a small village in the Kii Peninsula that has 800 times the average rate of ALS. We found it in their fish and sampled the marine water. On our way out of town, I said, "Let's sample the drinking water, as a control." That water was perfectly clear. When we got it back to the lab, we found that it was chock full of BMAA. That shocked me; it was *clear* water. The cyanobacteria were living on the substrate, on the bottom of the stream. Suddenly, we all realized, to our horror, that you can get BMAA in clear water and not just in cloudy, stinky water.

We next went to China, to Chengdu, the gateway to Tibet, where I'd heard people had been gathering cyanobacteria and deliberately putting them in soup. Dr. Bradley immediately wanted to taste the stuff. I begged him not to, but he insisted. We rushed a sample back to the lab. Fortunately, he had eaten *counterfeit* cyanobacteria. I have never been so grateful for criminal behavior.

We went to the Persian Gulf, because we'd heard that Persian Gulf veterans were experiencing twice the normal rate of ALS. So we went to—snuck into—northern Oman. Sure enough, we found cyanobacteria in the water in all of the oases. I had already talked to someone at NIH, which had published information about the rate of ALS in Desert Storm. I asked him, "What was different about Operation Desert Storm?" He answered, "When our personnel were deployed, they were cold, so they walked behind the tanks to try to stay warm, and they were breathing dust. Everybody in Operation Desert Storm complained about the dust." When we went into Qatar, I saw a dried-up mud puddle, but there was something funny about it. This was last August, and it was 120 degrees. I pulled out my water bottle and poured some water on the dried puddle. Boom! The cyanobacteria started photosynthesizing; they greened up quickly. Cyanobacteria fluoresces pink at a certain wavelength, so we tested it under a fluorescent scope and confirmed that it was cyanobacteria. So we think that personnel deployed to the Persian Gulf were inhaling a neurotoxic dust stirred up by tank treads. The Army got excited and suggested that I write a grant application. I wrote it and concluded with this: "Therefore, we advise there be no more military adventures in the Persian Gulf, until we sort this out." An Army official called me and said, "We're really interested in your science, but this grant application ain't gonna make it, Cox."

Our next stop was Italy. Italian soccer players have twelve times the average rate of ALS. I walked out into the Olympic Stadium with my trusty trowel. The security guards were waving their arms at me, but I didn't know what that meant. Those results were negative; there were no cyanobacteria in the stadium. We decided to check with some of the pharmacies and health

food stores to find out what the athletes were taking. Bingo! Cyanobacterial pills. We think they were dosing themselves with cyanobacteria.

Recently, I've been working up in Machu Picchu. I got word that people in Cusco were eating cyanobacteria. It turns out that Quechua Indians eat this stuff, so we're trying to get Professor Bradley down there to look at the neurology.

CONCLUSION: HAIR SAMPLES

I'll conclude with this: This is the kind of wonderful thing that happens only once in your scientific career. The family of somebody who died from an ALS-like disease, called supranuclear palsy, told me "Our grandma used to take locks of her hair and date them and stick them in her diary. Would you like samples of that hair?" We blinded it, ran it, and got these results: In 1944, she was accumulating BMAA; in 1957, she was getting more BMAA; in 1962, she had as much as the Chamorro villagers we measured. That was the reservoir accumulating, and then she started to put out the BMAA. In the last sample we had, in 1988, there was nothing observable; the accumulated BMAA was gone. A year later, she died.

What we realized was that if we had a time machine, we could have gone back thirty years and seen that this lady was accumulating rather than excreting, and we could have protected her from BMAA. Our hypothesis is this: It's a gene-environment interaction. Most of us at low levels of BMAA metabolize or excrete it; but there are a few people—very few—who accumulate, and those people are at risk. And we think we can predict, decades in advance, people who are at risk of Alzheimer's and ALS from BMAA.

Let me show you some data that I've never shown in public before. In hair samples from living Alzheimer's patients, we found that every single one of them had BMAA. When we looked at the hair of similar-age people without neurodegenerative disease, none had BMAA. We have the European and U.S. patents on this and hope to make it common knowledge. If we're right, within five years or so, every time you go to the doctor, the doctor will take a sample of your hair. Most of you will have no problem, but for a few the doctor will have some special advice. And here's the take-home message: Don't drink green, smelly water and don't eat bats!

IS MAN A WOLF TO MAN?—MORALITY AND THE SOCIAL BEHAVIOR OF OUR FELLOW PRIMATES†

Frans de Waal*

The old saying “man is a wolf to man” is often attributed to Thomas Hobbes but actually goes back to the Romans. It implies that wolves and members of our species are nasty, brutish, and competitive. The problem with this saying is that it definitely is unfair to the wolf; and it’s unfair to our species as well, I think. Wolves are actually highly social and cooperative animals.

In general, there is a tendency to blame all the nasty characteristics of the human species on nature, on the animal part of our nature, and to claim all the good characteristics for ourselves. We think that the good things, like altruism and empathy, are things we came up with and we alone have. I strongly disagree, and I will try to show you why I disagree.

TWO VIEWS OF MORALITY

Natural selection, admittedly, is a merciless, nasty process. That’s pretty obvious, and no one has any doubt about that. But people looking at that process have developed two completely different theories about the origins of morality. One group claims that this nasty process can produce only a nasty nature, and morality is just a veneer; deep down, we are negative and nasty. The other group says that the natural selection process can produce all sorts of things, including positive, cooperative behavior. The thinkers in this group believe that the process has produced a social nature in our species, which results in moral tendencies. They see continuity in evolution, and they see morality as a product of evolution, not as something we added. Those, then, are the two big schools of thought, the first of which I call the “veneer theory” and the second of which sees morality as part of evolution.

The first representative of the veneer theory was Thomas Henry Huxley, a contemporary of Darwin and Darwin’s defender. (He was known as “Darwin’s Bulldog.”) He claimed that morality was a departure from nature and uniquely human—and in this area, he went completely against Darwin’s thinking. This is a quotation from Huxley’s essay *Evolution and Ethics*: “[T]he ethical progress of society depends, not on imitating the cosmic

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process [evolution], still less in running away from it, but in combating it.” He saw ethics as the opposite of nature. The metaphor that he used was the gardener and the garden; the garden tries to get out of control, but the gardener keeps it under control. It’s really hard work to be moral beings.

Today, most biologists are on Huxley’s side. For example, Richard Dawkins ended his book *The Selfish Gene* with this: “We, alone on earth, can rebel against the tyranny of the selfish replicators.” The same view was reflected in a statement by biologist Michael Ghiselin that has been quoted often in the last thirty years: “Scratch an ‘altruist’ and watch a ‘hypocrite’ bleed.” The thinking is that a person might *act* altruistically, but deep down he is not really a kind person because he *cannot* be a kind person, deep down.

Darwin himself held very different view. Darwin saw continuity everywhere, and he even claimed that animals had a moral capacity. He said that “any animal whatever, endowed with well-marked social instincts, . . . , would inevitably acquire a moral sense or conscience, as soon as [it’s intellectually capable of doing so].” Darwinians who think this do exist today, and I would count myself among them, although the majority over the last fifty years have joined Huxley in believing that morality could not have evolved because nature would never produce such a thing.

CHARACTERISTICS RELATED TO MORALITY

Today, I will acquaint you with the basis of my belief that morality is part of evolution; I will go over a number of characteristics of animals that I think relate to morality. I don’t have the time to go into depth on each one of them, but there is a lot of research on these. For me, the two pillars of human morality are reciprocity and empathy, and the empathy capacity is absolutely critical. If you remove empathy, human morality falls apart.

Empathy

There is increasing evidence that animals have empathy. Most of us have experienced this in our personal lives. We have seen emotional convergencies in one-year-old children and in many animals. Actually, I think the reason we usually have dogs and cats as pets, instead of iguanas, for example, is that we feel an emotional connection with dogs and cats. Iguanas are much easier to keep—dogs and cats are carnivores and potentially dangerous—but we prefer the emotional connection.

We scientists have developed a number of ways of showing emotional contagion in animals. We started with motor contagion, under which yawn contagion falls. Motor contagion, such as yawn contagion, is very evident in animals. We have given up on filming yawns, so we made our own yawns with animation, and we show the animation to our chimpanzees. (My assis-

tant who made the animations said he's never yawned as much as during work; it's a profound response.) We also know that, in humans, yawn contagion activates the same brain areas that are activated during empathy, so it's a related response.

At a pain lab in Montreal, Canada, researchers discovered that if you test mice out of the same box on pain stimulus, they are sensitive to each other's pain, and they become more sensitive the longer they are together in the box; the last ones out of the box are more sensitive than the first ones. These researchers recently published a paper in *Science* on empathy in mice. They reported that if mice see another mouse from their box in pain, they have a stronger pain response. They don't have this response with strangers. The researchers call it pain contagion; pain becomes more intensified as a result of seeing others in pain. To me, this research on mice (and other research) shows that basic empathy, in terms of emotional contagion, is present in all mammals, and probably also in all birds.

With apes, we can do more sophisticated testing, and we have learned that apes go well beyond emotional contagion; there's much more going on than just being sensitive to the emotions of someone else. Using computers, we can show a chimpanzee an image of a face and then show two different images and have the same chimpanzee choose the facial expression that is most similar to the first image. Chimps can do that easily. They also can recognize faces and even kinship between faces; if you show them the face of a mother chimp and the faces of two young chimps—chimps that they've never seen in their lives—they can pick the child that belongs to the mother, based on facial similarity.

Taking this a step further, we have used video clips that are either positive or negative to chimps. A positive one would be of a favorite food, for example, and a negative one would be of a veterinarian approaching with a dart gun. We show one of these two kinds of video clips and then give the chimps the choice between two facial images, a happy face that they use during play, which is similar to our laughing expression, and a distressed face that chimps make when they are losing a fight. Spontaneously, after seeing a positive clip, the chimps choose the happy face, and after a negative clip, they choose the distressed face. That is a complex process, because that means they have to evaluate the emotional content of the video clip and then select the appropriate facial expression for that kind of situation.

I do a lot of research related to cooperation, which is based on being sensitive to the intentions and actions of others. I can give you a simple example of something I saw and photographed from the window of an office I have in Atlanta that overlooks the chimpanzees. A female was moving a heavy drum, and while she was moving it, a young chimp came over and started helping her. They moved the drum together, in coordination, and then

set it upright and sat on top of it together. All of that happened in about five minutes. It shows that another chimp understood the situation and the goals, and then helped in that activity.

In a video taken from the same office, we can see two chimps who are engaging in an illegal activity. The illegal activity is that they're trying to get through my office window into my office. It starts with one young female, who goes to recruit another female by tapping her. Together, they approach the wall, and one climbs on the other's shoulders to try to reach the window. They try a few other maneuvers before giving up. In order to do this, they have to agree on a goal, and they have to agree on a division of tasks. This kind of cooperation and coordination is pretty complex. It's clear that cooperative tendencies are highly developed in chimpanzees.

Robert Yerkes, at the Yerkes Primate Center, did experiments on this in the 1920s and 1930s. In his experiments, two young chimpanzees could see a box with food on it outside their cage. The box was very heavy, and two ropes were attached to it. The only way the chimps could get the box close enough to reach the food was to cooperate. They did that, quickly and easily, which showed that cooperation comes naturally to chimpanzees.

To make it more interesting, Yerkes would feed one of the two chimps before starting the cooperation experiment. Because of that, one of the two chimps was not interested in the task but the other one was. The hungry chimp had to work harder to get the help of the other—but eventually he got it. What was interesting was that the hungry chimp clearly understood that he needed the other; there was a full understanding of the nature of cooperation. Also, the second chimp, who was not really motivated, was still willing to work. He wasn't interested in the food—he took just one piece—but he still did the job. This reflects reciprocity between individuals who know each other well.

Let me move to something that comes closer to what we normally consider empathy. Empathy is not just emotional contagion; emotional contagion occurs in human children on the first day of life. If one baby in a nursery cries, other babies cry, and sometimes the whole nursery cries. That's emotional contagion. But empathy takes more than that.

I've done a lot of studies on reconciliation and consolation. Reconciliation is a process of reunion after a fight. For example, after a fight between two male chimpanzees, they both ended up in a tree. One of them held out his hand to the other and begged for contact. Almost immediately, the two chimps kissed and embraced each other there. That was the reconciliation.

Reconciliation has now been studied not only in many primates but also outside the primates, and we know that it's very widespread in social mammals. The only animal tested where reconciliation has not been found is the domestic cat. I have three cats at home and I can attest to the accuracy of that result.

Let me describe another sequence that showed reconciliation and something else. This sequence involved a male chimpanzee attacking a female. (When males fight with females, they use only their hands. When they fight with other males, they also use their teeth, which is very dangerous.) About ten minutes after the fight, the female came back and made contact with the male; she offered her hand for a hand kiss. In chimpanzees, this is an effective way of testing what kind of mood the other one is in, because if he's in a bad mood, he will bite the offered hand. In this case, though, the male kissed her hand, and then they proceeded to a mouth-to-mouth kiss, which is a typical reconciliation of chimpanzees. The added element in this sequence was that there was an old female who watched the fight and the reconciliation. The young female then went to the older female and sort of complained to her. The old female patted the young one on the shoulder and calmed her down.

That was very interesting behavior. We call it consolation when an uninvolved third party reassures a distressed party. In a database of two hundred thousand entries of chimpanzee behavior, there are probably ten thousand instances of consolation, so it's a common behavior in the chimpanzee. You can measure how much consolation contact is made after a fight with recipients of aggression and with aggressors, and the main thing to learn here is that the recipients of aggression get a lot more contact than the aggressors. So consolation is targeted on those who are probably most distressed.

Again, we have learned that animals other than primates engage in consolation. We learned accidentally that dogs do. There was a study done by Zahn-Waxler on young children. She went into homes where she had instructed family members to cry or act distressed in one way or another, and the intention was to see if one-year-old children would react to that. The children did react; even at just one year, the children would approach the distressed family members and try to look in their faces and contact them. Unexpectedly, Zahn-Waxler noticed that dogs in the home did exactly the same thing. If we define that as empathy in children, there's no reason not to define it as empathy in dogs. In literature about humans, this is called sympathetic concern, and it is considered an important step in child development.

By the way, Zahn-Waxler, who did the study I just described, said that thirty years ago, she could not go to scientific conferences and talk about empathy. The scientists grouped empathy with telepathy and astrology, with things that are supernatural and not worth studying. Zahn-Waxler and others had to fight very hard to make empathy a serious topic of research. In animal studies, we're still at the stage where people say, "Empathy in animals? What are you talking about?"

I think apes go beyond consolation; they also are able, to some degree, to take the perspective of somebody else. When we speak of empathy, we usu-

ally include some element of imagining how the other might feel or imagining yourself in the situation of somebody else. And I think apes have some of that capacity.

One of the first to describe this kind of capacity was Nadia Kohts, a woman in Moscow who worked with Joni, a young male chimpanzee, from 1913 to 1916, and later compared photographs of Joni's facial expressions with those of her own son. Publicizing her observations was tricky for her because the government was not supportive. She believed that Darwin was right, and Darwin was not entirely embraced by the communists. (They had a geneticist, Lysenko, who didn't believe in genetic changes. If you don't believe in genetic change, evolution becomes a very difficult process.) Kohts described what would happen when Joni managed to escape from the house. He would go to the roof of the house, and it was almost impossible to get him down. You could call him, hold out all sorts of food, and yell at him, and he would not come down for any of those; but if she started crying, he would race down from the roof, embrace her, and try to calm her down. That's how strong that response is in apes.

There are many examples of apes engaging in what I call targeted helping—complex helping geared toward the situation of somebody else which can't occur unless the helper can take the perspective of somebody else. The most famous incident occurred in the Brookfield Zoo, when a female gorilla rescued a little boy. The boy had fallen into the gorilla enclosure and was unconscious. The gorilla gently carried him to a place where people could attend to him. It was all caught on video and got an enormous amount of press, mainly because it was a member of our species who was helped. Scientifically, the significance is the capacity of the gorilla to have empathy for a member of another species.

Let me describe another striking example. The bonobo is a close relative of the chimpanzee. A bonobo at a zoo in England had found a little bird that had hit the glass of her enclosure and was stunned. She took the bird to the highest point of her enclosure, which was a tree, and she unfolded the wings and sent it out like a little airplane. That would not have been a good thing to do with another bonobo, but it was appropriate with a bird. Because of examples like these, I think apes have the capacity of putting themselves in the shoes of another being, even of a totally different species, which is a pretty special capacity.

According to the literature about humans, this capacity to take the perspective of somebody else relates to having a stronger sense of self, a strong self-identity. There is a lot of evidence that these higher forms of empathy in humans arise at the same time that children start to recognize themselves in the mirror, which usually occurs at the age of eighteen to twenty-four months. (When children start to recognize themselves in the mirror, that's an

indication that they have a stronger sense of self, a stronger self-identity.)

We have known for a while that apes, as well as humans, recognize themselves in the mirror. If you put a chimp in front of a mirror, he starts to inspect himself. For example, if I'm wearing sunglasses when I walk toward one of my female chimps, she will look in my sunglasses and immediately turn around to look at her behind in the sunglasses, because the behind is an especially important part of the female, and she never gets to see it without a mirror (or reflective sunglasses.)

I was filming one of my chimps, and she looked at the camera as a mirror and began inspecting the inside of her mouth. The inside of the mouth is another part of the body you cannot ever see without a mirror. So she gave the inside of her mouth a thorough examination. This is a typical reaction of chimpanzees; when they see a mirror image, they connect it with themselves. If you do the same thing with a monkey, even an intelligent capuchin monkey, the monkey looks at the mirror as more of a stranger. He makes social responses to the mirror monkey; he never has this self-inspection tendency.

There is a way of testing this mirror recognition. It's called the "mark test." In children, for example, you put a little mark above one eye, which they cannot see without a mirror. Then you put them in front of a mirror. If they look at the mirror image and then touch the mark on their face, it means they connect the mirror image with their own body. That's the mark test, which apes also pass.

New research shows that apes are not the only animals that engage in targeted helping. Higher forms of empathy and altruism are also known of dolphins and elephants. Dolphins have been tested with mirrors, and dolphins have passed the mark test. Elephants have been tested, but they have failed the test—with a dolphin- or human-sized mirror. I thought that was the wrong size, so we recently did a mirror test at the Bronx Zoo with a jumbo-sized, elephant-proof mirror. (Stupidly enough, we mounted the \$10,000 mirror on a thin wooden wall; we obviously were not thinking clearly because we *know* that all animals and children who see a mirror initially want to look behind the mirror. The elephants started by trying to climb the mirror wall! Fortunately, everything turned out all right.) We did the mark test on an elephant named Happy. We put a subtle cross on her head, above one eye, and we put a cross of the same size and type but in an invisible substance above the other eye. When she looked in the mirror, she first slammed her trunk multiple times against the visible cross in the mirror. But then she clearly touched the visible cross on her own head, as she watched in the mirror. She touched that cross twelve times and never moved to the other side to touch the invisible cross. So Happy passed the mark test. The newspapers would say, "She's Happy, and she knows it." We're now testing elephants in other zoos, and we're going to test elephants in the field in Thailand.

Reciprocity

I have talked quite a bit about the empathy side of morality. Now I need to say a few things about the reciprocity side, or *quid pro quo*. A lot of the tests in this area involve food sharing, and I'm going to talk to about food sharing by chimpanzees here. You might think that the alpha male would take any food he wanted, but that isn't the way it works. Even the most dominant individuals respect the possession of lower ranking individuals. It is true that if you give a group of chimpanzees food, at the moment the food comes in, dominance matters and high-ranking individuals have priority of access to the food. However, once food is in the hands of one of the chimps, it belongs to that chimp, and all the rest have to beg for a share, regardless of rank. In that system there's a high level of reciprocity.

The second currency that we compare with food sharing is grooming, which our chimps spontaneously do all the time. In one study, we looked in the morning to see who groomed whom and for how long. A couple of hours later we introduced food and watched to see who shared food with whom. We collected the data on about 7,000 interactions and then statistically compared the grooming and the food sharing, to see if the ones who did the grooming also did more food sharing. We found that if *A* had groomed *B*, then a couple of hours later there was a higher probability of *B* sharing food with *A*. There was no higher probability of sharing with anybody else; it wasn't that *B* was in a good mood and would share with everybody. *B* specifically shared with the one who did the grooming.

In the literature, this usually is called reciprocal altruism, and it requires two things: first, a memory, because you need to remember who groomed you (which is no big deal for chimpanzees; they remember a human face for twenty years); and second, a reaction to or feeling about that memory that makes you inclined toward more positive behavior. In humans, we call that gratitude. Bob Trivers, who developed the theory of reciprocal altruism thirty years ago, said that gratitude needs to be part of reciprocal altruism, and I think that's what we have seen in our chimpanzees.

In this same context, Sarah Brosnan and I did studies on fairness in our capuchin monkeys. Capuchins are easy to work with and very smart monkeys. We had done cooperation tasks with them, similar to the pulling tasks with the chimps, and we had noticed that the capuchins were especially sensitive to the reward distribution. We thought that was interesting because no one in the psychology literature had talked about that kind of sensitivity. So we developed some fairness tests.

Sarah first trained the monkeys, individually, in a simple barter task. She would give a monkey a pebble and then hold out her hand to ask the monkey to give it back to her. As soon as the monkey did that, Sarah would offer a

small piece of cucumber as a reward. Once the monkeys were trained in that barter, we introduced more complexity. We put two monkeys side by side in the test chamber and still gave a piece of cucumber to one but a piece of grape to the other one for the same task. What is the better reward? The grape, because all primates go for sugar content. So one got a better deal than the other for the same task. What was the consequence? If we gave both monkeys pieces of cucumber, they rejected only five percent of the time, meaning that ninety-five percent of the time, they performed the task without any problem. If one monkey was getting a grape, however, the monkey that received the cucumber rejected fifty percent of the time, *and* he became agitated; he not only did not eat the cucumber but threw the pebbles and even the cucumber out of the cage. Next, in a sort of perversion of the experiment, we gave one monkey a piece of grape without making him do the task. Then the partner rejected even more—eighty percent of the time.

We published the results, and our article, by chance, came out on the day that Dick Grasso, head of the New York Stock Exchange, received or wanted to receive a \$200-million pay package. The newspapers jumped on that and said that even monkeys have a sense of fairness, so why would Grasso need so much money? A connection was made immediately between a sense of fairness in monkeys and a sense of fairness in humans.

I do think that our monkeys have a very simple sense of fairness. It's an egocentric sense of fairness based on getting less than the monkey sitting next to you. But that's probably how it started, in evolution, and that's certainly how it starts in young children. An NPR show talked about our finding, and the NPR interviewer created a little experiment at home. He had two sons, and you heard him say to one son, "If you take these books upstairs, you'll get a dollar." You heard the one son going up the stairs, coming back down, and getting his dollar. Then the interviewer said to his other son, "If you take these books upstairs, you'll get fifty cents." There was a long pause, and then you heard, "That's not fair."

This reaction is usually called inequity aversion. We did more experiments of this kind, and we found that inequity aversion is much stronger when the paired monkeys don't know each other very well. This has also been found in humans. With family members and close friends, the sensitivity to inequity is much lower than it is with, for example, colleagues. If I suddenly discover that my colleague has a salary that is twice my salary even though he's doing the same work, I might actually quit my job, which is an irrational response. (Economists are interested in this irrational reaction because it doesn't fit their profit maximization model. If you are maximizing profit, you should accept any reward, regardless.) Humans as well as monkeys show irrational responses, and we're seeing that there is a long evolutionary history to this

inequity aversion. It stems from the fact that if you live in a cooperative society, as capuchin monkeys do in the wild, you need to watch what you get. If you contribute to cooperation, you need to get something out of it, and what you receive needs to be proportional to your effort in the cooperation. If that isn't the case, you're being taken advantage of, and you should protest.

We recently did a new experiment that I'm going to describe even though we haven't published it yet. This was an altruistic choice task that we did with our capuchins. We placed two monkeys side by side and allowed one of the two monkeys to pick one of two tokens. If she chose one she got rewarded and the other monkey got nothing; if she chose the other token, both monkeys got rewarded at the same time. The purpose was to see if monkeys have an altruistic tendency. We know that they have such tendencies in their social life, but showing it experimentally is something else. We tested eight females. All of them started out picking the social token about sixty percent of the time, but over time they ended up making the social choice about seventy-five percent of the time.

That was the result if we tested them with a monkey they knew. We have two separate groups of capuchins, so they know the monkeys in their group but not the monkeys in the other group. When we tested them with strangers, they did not make the social choice; they dropped that token and took the selfish token. So their altruism comes into play only with individuals that they know. This ties in with the empathy studies. In all of the empathy studies on humans and on primates and on mice, empathy is more strongly active with familiar individuals than with unfamiliar individuals.

So primates do care about reward division, and that is deeply rooted in us. This tells you something about the need for a just society, and I am writing a new book on how all of this connects to what I would consider a just society.

CONCLUSION

My main conclusion, which I want to end with here, is that Darwin was right—we are natural moralists. We have all these basic tendencies of empathy, reciprocity, and fairness, and these elements are incorporated into our morality. Of course, our morality goes beyond what our chimps and monkeys have demonstrated in our experiments; but these basic elements that are present in our morality can be found in other animals. This means that, as Darwin said, there's continuity between what he called the "social instincts" and human morality. Human morality is not some sort of invention that we came up with, and it certainly wasn't invented by religion, which is a recent development. I cannot imagine that early humans, say 30,000 years ago, had no moral system in their societies.

KEEP YOUR BOOTS MUDDY†

Bo Landin*

The title of my talk is my favorite saying, and people always ask what it means. “Keep your boots muddy” means keep your ear to the ground; look at and feel the reality of life, wherever that takes you. It also means communicating that reality.

My work has been as a presenter on Swedish television for many years. That isn’t what people in the U.S. know me for, but I would like to talk about my role as a television host—and I think you will realize that a lot of things unite barristers and lawyers with presenters.

SIMILARITIES BETWEEN MY ROLE AND THE ROLE OF A BARRISTER

I firmly believe that everything done on television is about entertainment, so I do entertain; but I bring in some facts at the same time. That is what I need to do as a host of the type of show I do. For example, to explain why penguins carry around their eggs on their feet, I demonstrated carrying around an egg on my foot—in Antarctica. I also explained why penguins don’t freeze their feet off, though I did freeze mine when I shot the sequence. For another episode, I went to a place in Namibia where they take care of orphaned animals. A fourteen-year-old baboon named Elvis rules the place, and I had to get him to accept me if we were going to be able to film. To do that, I had to play by his rules, which meant I had to dare to go up and nose-kiss him. Believe me, when you are very close to a baboon, nose-kissing him, you are a little bit frightened. Luckily, he accepted me. One cameraman was not so lucky. There are a lot of nice women who work at this place, and Elvis is protective of these women. One of the cameramen was dating one of the girls, and Elvis decided he didn’t like that cameraman. Elvis went over to the cameraman and hurt him in a way every man would understand. At that point, I wasn’t sure what would happen to our filming, but Elvis then took off and left us alone. Does that remind you of some lawyers you know?

Convincing an Audience

We have a lot in common. As a barrister, your work is about convincing an audience. That’s how I view my work, too. We actually play by the same

†Address delivered at the Annual Convention of the International Society of Barristers, Four Seasons Resort Maui, Wailea, Hawaii, March 13, 2008. Mr. Landin’s presentation included film clips that extended his message beyond the spoken words. The reader will encounter oblique references to those films.

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rules. We might have studied different books but we use the same system, as I'm going to try to make clear.

Let me start with one basic point. There is no such thing as objective journalism. There just isn't. Don't believe anyone who tells you otherwise. Yes, there are *facts*, but the choice of subject, the choice of people to interview, the choices made in editing, and the choices made in writing are subjective at every step. You inevitably are putting yourself into the story.

I can give you a specific example of the difference a journalist can make. I interviewed an industrialist about pollution issues. I first went through the entire interview in a straightforward way, and he gave me the polite, nice answers that these people always give. At the end, I said to him, "Okay, I'm a biologist, and I've studied chemistry, and I know you are lying. Furthermore, you know you are lying. Let's redo the interview, from the top, now that you know what I know and where I stand." And I got completely different answers. That is so common when you interview scientists, industrialists, or politicians. They have assumptions about you as a journalist—and usually that means they think you're dumb—so they feed you information they think you are not going to understand or challenge.

Also, facts may be facts, but they are not the truth. I think you know that when you are in trial, right? We *evaluate* the facts. That is where keeping your boots muddy comes in for me. I am open to what people tell me when I go into different cultures or different environments, but I keep my ear to the ground, listen to what they are saying, and try to interpret it.

At the same time, I rather like to oppose. When I did that once in the 'seventies, as head of an international environmental organization, the organization lost all the funding it had from the World Wildlife Fund. I had criticized the democratic setup of certain things in Belgium. Word of the loss of funding got back to the young Swedish king, and he got so upset that he called me through a friend (my mentor on Swedish National Radio) and said "I'll give you the money, so that you can continue your work." That was actually his first step into environmentalism. He paid the money into the World Wildlife Fund and earmarked it for our organization. After that, of course, the World Wildlife Fund could no longer criticize me.

Tool for Those Without a Voice

My life is to be a tool for people (or nature) without a voice. That's what I can do because I'm extremely privileged to have access to television stations around the world. One place where the people desperately needed a voice was Cubatão, Brazil, outside São Paulo, in the mid-1980s. This was one of the most industrial and polluted cities in Brazil. The workers in a chemical factory owned and operated by Americans asked me to come to a secret place. They were so destroyed; their bodies were full of cancers and

other diseases. Small children were dying because of the pollution of Cubatão. And the people had never dared to speak out. I was there just after the military dictatorship fell. No one else had been there to film.

I decided to look into what the factories were doing. I found a dumping ground, heavily patrolled by armed guards, and I told my film crew that I had to go in and get some samples so we could find out what was in there. I could not ask my film crew to go in with me. We would be trespassing, and we would be walking into whatever dangers were there. The cameraman, however, decided to join me, while the rest of the crew waited outside. Eventually, we got some samples. I took them back to scientists in Sweden, who analyzed them and sent the results back to the few doctors in Cubatão who dared to oppose the system. The biggest problem of all was that the local authorities had given settlers the land right outside this chemical dump, and the settlers were drilling for their water by the dump. They drank the seeping water that came through the poisonous dump.

My visit in Cubatão was one time when I felt really happy to have a lawyer next to me. One of the lawyers who helped to write the new constitution of Brazil was with me. One day, we were filming outside the Petrobras refinery, and we didn't see a guy approaching us, who came up with a gun pointed at our heads. He was the local guard or policeman for the refinery. The lawyer, standing next to me, said, "I think you should know that the military dictatorship has fallen. We're in a new world now. Put the gun down. We're here as legitimate journalists." And the guard lowered the gun.

That wasn't pleasant, of course, and you think twice. But that's sometimes what you have to go through to get those stories out. And I'm very happy that the film about Cubatão, when it was shown around the world, created a lot of stir. I will tell you a little bit more about that later.

The Story

I often say that there are three components of film making: story, story, and story. (It's also money, money, and money.) It's the same for you when you are standing there in court. You have to tell a believable story, and if you don't do it right, you're going to lose your audience and your case. It's the same with us.

We tend to think that "story" is something we invented now, but the best authority I know on stories is Aristotle. I suggest, if you haven't done it, that you read Aristotle's book *Poetics*, where he defines drama, where he defines comedy, where he defines story. That's where it all comes from. And you could say this is universal. That is what one of the big story experts told me at a seminar. I asked, "But are you sure that the Japanese and Chinese tell stories in the same way we do?" He said "Yeah, they do."

I do know that there is one big difference, even though story structure is the same: We see pictures differently. I realized this when I tried to describe how Scandinavians look at film and how we do film. (We are not all like Ingmar Bergman, sort of dying on the spot.) We like to see grass grow. Scandinavians can sit and watch a sunset or a nice landscape—we can actually *watch* landscape. As I thought about that, it came to me that the way we view pictures and understand images is reflected in our gardens. If I know what a Scandinavian garden looks like, or a British garden looks like, or an American garden looks like, I can probably tell you how we think when it comes to images. Scandinavians have big gardens that are not fancy, but there is always something useful in them, like an apple tree. We like space and openness. The British have a thousand species crammed into small spaces and there's a water pond. Look at British nature films. They are full of this diversity of species. Then the Americans—I honestly don't know what to say about you. It seems like the attention span here is two seconds. Whenever I tell people at the Discovery Channel that I have this beautiful vista, a magnificent landscape scene, their response is, "No, we can't have that. Let's go into the action." Action dominates a lot of the American films, and we are all forced into that model when we make our films.

Returning to the critical story process, I would like to outline the phases, and you can see whether these apply to your court cases. The inciting incident is what you need to have up front, to induce the audience to stay with you to the end. So you make a claim or your basis for defense. That's your headline, right? You have to get that right. If any film you see doesn't get the inciting incident right, the audience is going to get bored and will not think it's a good film. Then you have the complications. That's when you build your case and look at evidence. You take it left and right, and you test the hypothesis, and you build momentum. Then you come to a crisis point; this is crunch time. I have to get this right to make my audience understand, and my lead character is key. The lead character in a lot of my films is the animal species, but your lead character of course is your client. He comes to crisis, and he needs to survive the crisis. Then there is a decision. That's the verdict, in your case, or the climax in the film, followed by the resolution, or the consequences. Basically, that's how we tell a story, whether it's a thirty-second story, a one-hour narrative, a feature film, or a multiday trial. Aristotle told us that this is how you have to tell the story, to make it believable and to keep the audience with you.

WORKING WITH LAWYERS

I have here, in my hand, the business cards of several lawyers. I need lawyers. And I need different specialties to keep me going. Let me give you

a couple of examples. As I have told you, I had been to Cubatão, in Brazil, and I had done work there that no one had done, and I had access to papers and information that no one else had been able to access. I got a phone call from a scientist in Britain who was studying the exportation of dangerous industries to third world countries, and she wondered if she could have some of my papers. I said, "Of course. I'm delighted to help forward science in this field; it's important that you do the work." And I shipped off all my research material. Two days later I got a phone call from someone at the BBC, who said, "Sorry, that wasn't a scientist at a university. It was us, the BBC. We have tried to obtain this material for a long time, and we knew you had it. We had to get it."

I was furious. That is the kind of tactics I might apply against an industrialist or someone like that, but not against a colleague. I replied, "But you *know* me; you know you could've called me, and I would've given you this stuff. But now, because you did it the way you did, I'm going to sue you." The response was, "We're the BBC, what can you do?"

I certainly didn't have the money to fight the BBC, but I did have a good bird-watching friend who happened to be a partner in one of the biggest law firms in London. I rang him and said, "Richard, you know I can't pay you. Do you want to take on the BBC?" He said, "I'd love to." He contacted the director general, and the answer we got back from the BBC was, "Oh, we're sorry. That was a secretary." Of course, they were lying. So we wrote to the director general and said, "We demand a letter from you accepting the responsibility. And we need you to pay money to a charity of Mr. Landin's choice." When they received the letter—and I think they only read the letterhead—they realized that they couldn't fight that law firm. So I got the money for my charity, and I got the written admission. Then I said to the BBC, "If you ever do that to me again, I'm going to publish your letter." I haven't published it, but I still have it.

The second example of my interaction with lawyers relates to a film I was going to do in Qatar. We were going to be allowed free rein inside Al Jazeera. Our attitude was, "Nothing can tie us down. If we're in here, we've got to follow your work." My U.S. lawyers said, "Don't do it." So, suddenly, the country that protects democracy and free speech was the source of advice not to stand up for issues the way I've done all my life.

A similar problem came up in relation to Cuba. Journalists and scientists are outside the Helms-Burton Act; we are allowed to be in Cuba. So my crew decided to do a film project in Cuba, to depict Cuba as it is. I have a Costa Rican researcher, a lovely girl, who happened to be in the U.S. at the time. We were going to send her the money to go to Cuba and do research. My assistant in Sweden, unfortunately, wrote "Cuban funds" on the international wire transfer. *Someone* is looking at those transfers—the money disappeared! And we didn't know

where. Two days later, the research assistant's credit cards were stopped, and everything jammed shut. We had no idea what was happening. (I didn't know at the time that my assistant had written "Cuban funds" on the wire transfer.) The money ended up at the State Department for ten months while it was investigated. Eventually, we were found to be legitimate film makers, and I got the money back with interest (better interest than I got from my bank). But still, some of my biggest legal problems have come from the greatest democracy and protector of free speech and free press.

There are other issues that are more about morality than legality. Do you think television stations fake stories? I'm going to give you an example. Our company did a film about Siberian tigers and clashes between the tigers and humans. We had access to a local antipoaching policeman's video, which we used in the BBC version of that film segment. The narrative said:

Over the years, [the policeman] has witnessed an increasingly desperate clash between humans and tigers. He is regularly called out to investigate a tiger attack, often arriving to find only gruesome remains. And increasingly, what unfolds is a metaphor for what is happening on a grand scale in this region: humans, hungry and without jobs, chasing the same food source as the tiger, forcing the starving tiger to attack the encroaching humans. This incident . . . began like many others. A hunter reported missing. It turned out that the victim was a former student of conservation. Gradually, it became clear: The dead man had turned his knowledge of tracking tigers to poaching them. But what could lead a man sympathetic to the cause of nature to such a reckless act?"

We produced this film at about the same time that those disturbing pictures came out of Iraq, showing U.S. soldiers being killed, dragged in the streets, burned, and hung up on the bridge in Falluja. I'm sure you remember the pictures. There was a huge uproar, of course, over those pictures. In response, the Discovery Channel made a decision that the station would not show any dead people, remains of dead people, or parts of dead people. My first question was, "What do we do about our mummy films?" So they adapted a little bit to apply the policy to more current dead people.

Because of this new policy, the Discovery Channel would not let us include the pictures from the policeman's video. I argued that they were crucial to the story we were trying to tell about the conflict between Siberian tigers and the people living there. People were starving; tigers were starving; people were poaching to survive. And the fact is that if a Siberian tiger stands on its hind legs, it will tower over any man; so a man standing there with a gun had bet-

ter aim perfectly. This hunter didn't. (There was another hunter in the film who also didn't.) The starving tiger does what's natural. I thought we should show that. Discovery refused and said we had to do something else.

So we went out into northern Sweden, found some snow, and shot a new scene without the body. We shot it the same way the antipoaching policeman had shot his. This is the Discovery Channel version of the narrative:

. . . conflicts between tigers and man. He must establish the cause of confrontation before he can decide what action to take. It is forensics work, and the tracks in the snow will tell him a story and will add to his understanding of what really took place at the scene. As part of his investigations, Yuri has taken to recording his experiences on camera. This incident began as so many others: a hunter reported missing, and tiger tracks in the vicinity. Traces of blood soon lead Yuri and his team to the attack site. On examining the body, Yuri discovered that the victim was a former student of conservation. From the evidence at the scene, it was clear that he had turned his knowledge of tracking tigers to poaching them. What could lead a man sympathetic to the cause of nature to such reckless action?

In the Discovery Channel version, there is no mention of the fact that the scene was a reenactment. I asked them to say something or insert some text—a subtitle—that said, “This is a reenactment.” Their response? “No. That’s going to destroy the film.” Where’s the morality and the ethics in that? Do you think that is right or wrong?

Those are the kinds of issues we face all the time. They aren’t necessarily legal issues; often they are moral and ethics issues. What do we show? Why do we show it? How do we respect people? What is respect, and what is disrespect?

The other legal matter that I sometimes struggle with is paperwork—specifically, release forms. I think this is an American invention, because we never heard of them in Europe. Imagine filming a tribe in Papua, New Guinea, and showing a release form to the tribe’s elders. The form was written by a lawyer at Discovery Channel or National Geographic or whatever organization I’m filming for, and even I can’t read it or understand it. How am I supposed to explain it to the elders? I refuse to use the official release form many times, because I think it’s an insult to people around the world. It should be written in the language of the people you’re filming, and it should say, simply, “Yes, I know you have filmed me, and it’s fine that you do your film.”

[In Papua, New Guinea, they posed an entire village in front of a still camera with a sign that said, “We agree”—in English. That’s a release form!]

WORKING WITH SCIENTISTS

I work a lot with scientists. It's very important that scientists speak out, but most of them are not good at communicating with nonscientists. Only a few are really good at that, and Paul Cox is one of those.¹ My wife, Marianne, and I met Paul Cox about twenty years ago. Marianne had just started to work on a film about "green medicine," medicine coming out of the rain forests, and Paul invited us to go to Samoa with him. We went, and we learned a lot about the culture and healing practices of the Samoan people Paul worked with, and about Paul Cox. As you know, he is a brilliant scientist who knows how to communicate; and we developed a great appreciation of Paul's respect for local culture. He taught us how we should behave in cultures so different from our own.

Later, when I was in Antarctica, Marianne returned to Samoa to do some more filming with Paul. She called me and said, "They are cutting down the rain forest. Paul is trying to save it. What are we going to do?" And I said, "Film it." It took three years, but rain forest was saved, and Paul had raised money in the U.S. to build a school so that the locals didn't have to cut down the rain forest. It was a brilliant, happy-ending conservation story.

Marianne and I went back to Sweden and heard on the news that a hurricane had hit Samoa. We traveled back immediately and met Paul in the village. Everything was destroyed—everything except the school Paul had built. That school saved 600 people in the village when the hurricane hit them. And that's how a good conservation story makes for a good film story and a great human story.

LIFELONG LEARNING

To be in my field of work is to be at a lifelong university. I get into my film projects because I ask questions, and I want to learn more. I meet people like Pau Cox. I meet other scientists. I meet local people in all sorts of cultures. I keep my boots muddy. And I learn and I learn and I learn. That is the great privilege of being a film maker in this field.

¹ See Paul A. Cox, *New Insights into ALS, Alzheimer's, and Parkinson's Disease from Ethnobotany*, 43 INTERNATIONAL SOCIETY OF BARRISTERS QUARTERLY 448 (2008)

JURIES AND JUDICIAL INDEPENDENCE†

William G. Young*

In the early days of our country's existence, Thomas Jefferson said: "I consider trial by jury as the only anchor ever yet imagined by man, by which a government can be held to the principles of its constitution."¹

Fast forward more than 200 years. We are trying Nygell Jones—felon in possession of a firearm. Those usually are rather straightforward cases, but this one has a wrinkle: Jones is acquitted. When that happens, a judge gets to utter what are among the most profound words that are given to us to speak; judges all know how to do it. When the jury comes back and returns a verdict of "not guilty," the judge immediately says, "Mr. Jones, the jury having found you not guilty, you are discharged. You are free to go without delay, unless there be other process against you." Then the judge turns to thank the jury and recesses.

Nygell Jones, no fool, hotfoots it out of the courtroom, because, in fact, there are three other detainers against him. And soon four marshals are chasing him through the financial district, to serve those detainers. A marshal comes to me. She is not happy, and she says, "Judge, you can't do that. You have to send him back to us to be processed." And I explain—not too gently, I'm afraid—that that is not how it works. When the jury pronounced the verdict "not guilty," the government lost all hold on Mr. Jones instantly. If they wanted to serve him with other process, they needed to have a deputy marshal in that courtroom, with the process, ready to take him into custody.

One more story, one that catches both the vision and the reality. We are trying a short case, a three- or four-day case. We are in the second or third day. As a juror is driving into Boston, her car breaks down on what we call the Southeast Expressway, a main artery clogged in the morning. She drifts off into the breakdown lane and gets out of her car. This is Massachusetts. Nobody stops. Nobody helps her. Everyone just goes by. She's standing there in the rain. Eventually, our safety net kicks in; a Massachusetts state trooper comes along. He puts on the yellow flashing lights and moves over into the breakdown lane, protective of her car. He is getting out of his cruiser, when she walks back to him and says, "I am a juror in federal court! Take me to the courthouse!" And you know what the trooper does? He puts her in the cruiser, turns on the blue lights, and starts barreling up the South-

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¹ Letter from Thomas Jefferson to Thomas Paine (July 11, 1789), in 7 THE WRITINGS OF THOMAS JEFFERSON 408 (mem. ed., Andrew Lipscomb & Albert Bergh eds., 1903-04).

east Expressway. What's more, he has a radio. He gets patched through to us. We know the juror is coming in. I am ecstatic. This is what we want from jurors! It is just amazing!

I go the window, looking out into the rain. Then the cruiser swoops in, in front of the courthouse. The juror gets out. We have very slow elevators in our courthouse. *Very* slow. So, very slowly she comes up. She gets out of the elevator on our floor and starts running along the hallway. And my clerk meets her. (As you know, once the jury has been empanelled, the judge is not supposed to have direct interaction with the jurors, so it is the clerk who is talking to her.) But I am at the edge of my lobby, ready to go, and I can hear them. The juror is out of breath, and she says, "The trial . . . I tried." Is she ever inspiring! We've been down only about seventeen minutes. She's done it! Then she says she wants to call AAA to get her car towed. It is sitting there on that busy highway. I can't talk to her, but I can step out and usher her into the lobby where I have a phone. She calls. You all know what happens. She's in the courthouse; her car is out on the Southeast Expressway. She isn't with her car, and they won't tow it. They are afraid of liability. I go crazy and take the phone. "Do you know who this is? You get someone out there to tow this lady's car!" That violates about four judicial canons, but it captures the idea. I honor that juror, because she, at least, has the vision.

So let's talk for a few moments about juries. Here's the point I am here to make: The American jury system is the strongest guarantor of judicial independence that we have.

THE STRUCTURE OF THE FEDERAL GOVERNMENT

Consider, first, the structure of our federal government. There are five classes of constitutional offices. Let's go through them. (This is review, but you can handle it.)

Article I sets up the Congress first. Here, there are two classes of constitutional offices: the House of Representatives and the Senate. They are meant to check each other and to check the other two branches of government.

Article II sets up the presidency, a unitary presidency. The executive is the only branch of government on duty 24-7. Article II provides for a single President. It also mentions the Vice President, but it is clear that the Vice President is not supposed to be a check on the President, so I figure Article II establishes one constitutional officer: the President and the backup, the Vice President. That is the only constitutional office in the executive branch of government; everybody else just works for the President.

Article III—you all know Article III—reads like this: "The judicial power of the United States shall be vested in one Supreme Court, and in such infe-

rior courts as the Congress may from time to time ordain and establish.” The next sentence talks about judges, and the next two paragraphs discuss jurisdiction.

So, we are up to four now: “representatives,” “senators,” “president,” “judges.” Then the third paragraph of Article III, Section 2, says: “The trial of all crimes, except in cases of impeachment, shall be by jury.” This is in the original Constitution, not in the Bill of Rights. “Jurors,” in their fact-finding role, are constitutional officers.

The founders, Professor Akhil Amar of Yale tells us, could not conceive of a federal judge exercising the jurisdiction of a federal court in criminal matters unless she was sitting with jurors who were to check and temper that judge; and, together, they were to check the other two branches of government.² Thus, we embarked on what Alexis de Tocqueville called the most stunning experiment in direct democracy ever seen.

“Direct democracy”—the people themselves ruling directly. The New England town meeting writ large. Has there ever been any deeper expression of hope than our form of government, and the jury in particular? The jury embodies the hope that ordinary people can come to understand the laws and the Constitution, no matter how complex, and then, without bias, can fairly and independently apply that law to the adjudication of particular disputes.

CONSEQUENCES FOR JUDGES

No country in the history of the world has turned to jurors more than the United States of America. No country. And look at what has happened. The fact that it is necessary to explain the law to real, average people who come in off the streets has worked an extraordinary empowerment on the judiciary of this country. The fact that we share the judicial power with juries has only made judges stronger, so that today the judiciary of the United States is the most independent and most envied judiciary in the world.

How has it made us stronger? Very practically and realistically. Trial judges have known, from the inception of our country, that it would be necessary to teach, to explain to others, what the law really means. And as those of you who are engaged in teaching know so well, if the essential role of the judiciary is teaching, we have to understand the subject matter.

I can't tell you what a revelation that was for me when I went from the bar to the bench, some thirty years ago. I had been an active lawyer. I had been a law clerk, and I kept reading the decisions of the bench for which I had clerked. In my shallow advocate's way, I lined those decisions up either for me or against me, or by how I could distinguish them. But then I took on

² See AKHIL REED AMAR, *AMERICA'S CONSTITUTION: A BIOGRAPHY* 236 (2005).

the responsibility and the privilege of judicial office. And, for the very first time, I had to figure out: What do the laws and decisions mean? What do I need to tell the jury? How is this supposed to work in actual society?

When you do that—and all judges do—you realize that in a country under a written constitution, it is incumbent upon you to harmonize that supreme law, the Constitution, with the expression of law by the legislature. And sometimes you can't do it.

Go back to the presidency of Thomas Jefferson and the Embargo Act. In a case called *The William*, an individual trial judge, exercising his duty to interpret the law, declared that he could declare an act of Congress unconstitutional.³ The Supreme Court had done that several years earlier, in *Marbury v. Madison*,⁴ but this was the first time an individual trial judge had claimed to have that authority and responsibility. And constitutional scholars have told us that, outside the decisions of the Supreme Court, the decision of the United States District Court in *The William* is the most significant constitutional decision in our history, because that doctrine has flourished. Yes, trial judges are subject to stare decisis. Yes, we must faithfully apply the mandate of the courts above us. But we must decide. We must decide in specific cases, and we must explain to juries in specific cases; we cannot wait for the law to be clearly or finally resolved. And so, because we rely upon juries more than any other country, we are the only country, the only country in the history of the world, to give constitutional interpretation to first-line trial judges. No other country does that.

Most democracies have constitutional courts, the final word on their constitutions, analogous to our Supreme Court. They each have one such court, just like we have the Supreme Court. Germany, Japan, and Italy have constitutional courts, and today they are democracies. France, Israel, and even Russia have constitutional courts, and they profess to be democracies. None of them is American democracy. The Constitution is as close to all of you and to all of our people as the closest court. Walk into any court—any court, state or federal—and you will see constitutional issues daily. Why? Because the Constitution has to be taught and explained to jurors and, ultimately, to our people generally. Today, more than ninety percent of the jury trials on the planet take place in the United States.

ALL IS NOT WELL

Yet the American jury system is dying. It is dying faster in the federal courts than in the state courts, and it is dying faster on the civil side than on

³ United States v. The William, 28 F. Cas. 614, 620 (D. Mass. 1808) (dictum) (Davis, J.).

⁴ 5 U.S. (1 Cranch) 137 (1803).

the criminal side, but it is dying. It will never go entirely, but it is already marginalized. It is not at the center of our political discourse.

How is this possible, with our Constitution and every one of the fifty state constitutions guaranteeing the right to trial by jury? The general answer is that we do not care.

There is not, in the United States today, a direct attack upon the jury system. No popular referendum that has used the word “jury” has ever passed when it has been put to the people to restrict the right to trial by jury. In every respect, the attack is always indirect. But it is true that the jury—direct democracy—is the most vital expression of local government that exists; and local government, after the Civil War and the civil rights movement, is not held in high esteem generally. We tend, today, to think that problems should be solved nationally, and from the nation we take our direction.

We must remember that the great authorizing force, the great authorizing standard in America is democracy. Democracy writ large is found in the franchise. Retail democracy, person to person or person to government, is found in the jury. It is the basic authority of our government. But it is dying. Sometimes the attack comes from special interests and they, in the name of reform, grab the attention of the legislature, and then by indirection, the right to trial by jury is narrowed. More difficulties are thrown in its way, but the attack is not direct.

I am here to say, respectfully, that it is the judiciary that has failed to constantly and incessantly place the jury trial at the very center of its operations. In part, this can be traced to decisions of the Supreme Court, which we must follow. Andrew Siegel, a former clerk to Justice Stevens, has written a brilliant article, a contrary article, with the title “The Court Against the Courts.”⁵ What does that mean? His article is about the disdain for lower courts shown by the Supreme Court. Some of his examples are these, and they resonate.

It used to be that giving up the right to trial by jury required a knowing, intelligent, voluntary, case-by-case waiver. Not when arbitration is in play. Do you trade on the New York Stock Exchange? You’ve given up your rights. Do you have long distance phone service? You’ve given up your rights. Do you use cell phones? You’ve given up your rights. Do you work for Circuit City or other major employers? You’ve given up your right to trial by jury.

What about preemption? Congress passes ERISA, and the Supreme Court reads preemption broadly, and suddenly the federal courts are snapping up out of the state courts all consumer protection cases so long as the defendant is an insurance company. Boom, you are in federal court. I vividly remember

⁵ Andrew M. Siegel, *The Court Against the Courts: Hostility to Litigation as an Organizing Theme in the Rehnquist Court’s Jurisprudence*, 84 TEX. L. REV. 1097 (2006).

one such case, a wrongful death case against an insurance company, a well pleaded case. I had an initial case management and scheduling conference, during which I said, "Now, when do we go to trial with this case?" The defense lawyer said, "Judge, the case isn't going to trial." I said, "Well, we will get a motion to dismiss on it, I guess, but when will we schedule it for trial?" "No, it's not going to trial." I said, "Why not?" He said, "It's preempted." I said, "I understand it's preempted. That's what brings it to federal court. I have that concept in mind." He said, "But, Judge, there is no remedy in federal court." "Wait a minute," I said. "Here's this state court case for wrongful death. We've had wrongful death cases for at least 200 years in Massachusetts; I used to be a state judge. Now we are in federal court, and you are telling me you're properly here, but there is no remedy?" I can be meaner than that, but this lawyer is a very good lawyer and he stood up to me, as you all should. He said, "That's right." I went crazy. I left the bench and told all the law clerks, "That's wrong; find a way around that." But he wasn't wrong; that was the law. I threw the lady out of court. (That didn't make it *right*.) And what happened to the constitutional right to trial by jury?

I talk only about my federal colleagues, but the problem is pervasive. In all honesty, we have lost our way. In 1988, the average on-bench time of a United States district judge was 790 hours. Do you know what it is today? Fiscal 2005 is the most recent period for which I have numbers. The average on-bench time was 437 hours, including 225 hours on trial. The institutional judiciary hates it when I say that, because the immediate reaction is that we're not working, and that's wrong. We are working as hard or harder—and I have been privileged to be a federal judge for twenty-two years—than we have ever worked before. What are we doing? It took seventy-five years for *Federal Supplement*, the vanity press for district judges, to reach 1,000 volumes. My first published opinion was in 656 F. Supp. My most recent opinion, after only twenty-two years, was in 477 F. Supp. 2d. If I survive three more years, I will have opinions spanning 1,000 volumes. What are they about? Are they about great cases, findings, and rulings? There are a few. But do you know what most of them are about? Pat Wald, a former chief judge of the D.C. Circuit, said in a famous lecture that the jurisprudence of the federal court is the jurisprudence of summary judgment;⁶ and if she had added motions to dismiss, she would have gotten it completely right. Page after page of these carefully reasoned adjudications give the reasons why we don't go to trial. And you wonder why trials are vanishing. Here's the former president of the Conference of Federal Trial Judges, in *The Third Branch*, our house organ, describing what she says the job of a judge is:

⁶ See Patricia M. Wald, *Summary Judgment at Sixty*, 76 TEX. L. REV. 1897 (1998).

Litigation management is our primary job, and, even with fewer trials, there is a lot of litigation to be managed. We trial judges still spend a lot of time on the bench resolving disputes, even if it is not always during trial. Discovery is a demanding—and growing—part of litigation management and expense. Mediation—even when it occurs early—doesn’t always succeed in resolving the case. The lawyers engage in extensive, contentious discovery that requires an enormous amount of attention both from magistrate and district judges.⁷

Litigation management. Hardly a shining vision, is it? Once we are divorced from daily interaction with jurors, our written opinions subtly mock the very idea that democratic institutions might be made to serve the cause of justice. This leads us to prefer knowledge over hope, as the jury system is, if nothing else, our country’s finest expression of hope.

When I came to the state bench in Massachusetts, the senior active judge told me this: “This is a trial court. Trial judges go out on the bench every day and try cases.” I had always thought that was what the job was. Think for a moment about the different tenor in how a judge learns if litigants and juries don’t have that 790-hour face time with the judge. The judge is going to work on your case. The judge is going to work terribly hard. He is going to talk to his law clerks. They are smart. The surroundings are pleasant. But there is no substitute for a jury trial. This is what a famous courtroom deputy clerk, Austin Jones, told me about the judge for whom he was the courtroom deputy, Franklin Ford (a name to conjure with in Massachusetts); Frank Ford said, “You have got to go out on the bench, Austin, and listen to the bastards. They might just have something.”

Only a few voices have been raised to say that when we get away from daily jury trials, when we get away from fact-finding, which is, of course, what the trial bench contributes to the process, judicial independence is weakened. Truly, the eclipse of fact-finding foreshadows the twilight of judicial independence.

At 8:56 a.m. on September 11, 2001, the world turned upside down and the future became present. Words of Ronald Reagan, that I thought were prophetic, became starkly real. When he was inaugurated as governor, Reagan said, “Freedom is a fragile thing and is never more than one generation away from extinction. It is not ours by inheritance; it must be fought for and defended constantly by each generation, for it comes only once to a people.”

There were judges who thought that, by and large, we could do without juries and we would still have the same moral authority, and our written opin-

⁷ *Conference Represents Federal Trial Judges*, THE THIRD BRANCH, June 2003 (interview of Chief Judge Irene M. Keeley), available at <http://www.uscourts.gov/ttb/jun03ttb/interview.html>.

ions and constitutional interpretations would still occupy the center stage of political discourse. Even they were rather stunned that the President thought he could do without *courts*, by and large, with respect to people he designated as enemies of the state. And the Congress acquiesced. And the press began to speak of courts as simply a parallel track.

When you have done away with the common sense and practical, case-by-case resolution of jurors, you face some ugly issues. For the first time in my memory and I think in our history, the Congress has had to debate whether torture is a public policy of the United States. *Torture*. We don't say that, of course; we say "harsh interrogation techniques"; but nobody is fooled. Lincoln, a great trial lawyer, had a story for this, from a case where the other side kept twisting words. In the middle of the trial, Lincoln looked at opposing counsel and said, "How many legs does a sheep have?" The other fellow, a straight man, said, "Four." Lincoln said, "Now, if you call the tail a leg, how many would it have then?" The other fellow fired back, "Five." And Lincoln said, "No, the sheep would still have four legs. Calling a tail a leg doesn't make it a leg."

And the writ of habeas corpus? In *Hamdi*,⁸ the Supreme Court respectfully said, in effect, "Mr. President, it's about the writ of habeas corpus. It's in Article I; that's the article about Congress. We are not clear that Congress has suspended it." Then Congress said, "What? Not clear?" And Congress did something that all the martial prowess and military power of the Southern Confederacy never elicited; for those whom the President had designated enemies of the state, Congress suspended the writ of habeas corpus. And I suggest to you that when our legislators did that, they took the sword of justice and dropped it in the dirt. (Some of them now say they want it back, but they are finding, sadly, that regaining a right once surrendered is far more difficult than fighting for a right long possessed.)

Let me tell you what jurors have done during this period. In the days after 9-11, jurors—and I have the nationwide statistics—turned out in response to summons for jury service as never before in our history. They came to do the work. They came to support our governmental institutions. And, most magnificently, studies show that in the year of near hysteria following 9-11, the conviction rate remained absolutely constant. It didn't go up in favor of the executive branch. The allegiance of jurors to our governmental institutions was an allegiance to justice.

⁸ *Hamdi v. Rumsfeld*, 542 U.S. 507 (2004).

MY REQUEST

I am here for a very simple reason. I am here to ask, to *beg* you to think on these things—and then, having thought individually, to act on your individual convictions.

Further, I am going to give you a place where I want you to go to ponder. I want you to go into a courtroom when a jury is returning a verdict. It doesn't have to be your case. You all know how it is done. The jury says, "We have a verdict." The courtroom is prepared and everyone is ready. The jury comes through the door. Everyone looks. How is the jury? Are the jurors looking at the defendant? Are they haggard? Are they comfortable among themselves? Court is in session. The clerk says, "Madam forelady, has the jury agreed upon a unanimous verdict?" The forelady says, "Yes." The deputy clerk says, "Pass the verdict slip." It is passed up; all eyes are on it. It is passed to the judge. The judge opens it and looks at it. The judge says, "The verdict is in order, and it may be recorded." The judge gives the slip back to the clerk, and the clerk looks at the jury and says, "Ladies and gentlemen, would you please rise." They all stand up, awkward now. There is dead silence in the courtroom. Everybody looks at that verdict slip. Then the clerk says, "Ladies and gentlemen, hearken to your verdict as the court records it."

At that moment, an involuntary shudder goes down your spine; you are witnessing the purest form of democracy known to humankind. And if you can, I ask you to tear your eyes away from the verdict slip and give way to a larger vision. Holmes says that if you do that, at that moment you will touch the infinite. Because somewhere up there, behind that clerk, will be the flag of the United States of America. You'll see it and you will know that that flag still stands for freedom. You'll know it always will. For, where a jury sits, there burns the lamp of liberty.

Go, and make it so.

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