

**Launch of the AAAS Science and Human Rights Coalition  
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**Sidney Verba**

It is a great honor to speak at this launch of the AAAS Science and Human Rights Coalition, and most particularly to speak in the company of such illustrious human rights advocates and organizers as Mary Robinson and Mercedes Doretti.

I have been asked to speak about the relationship between science and human rights; I do so from the perspective of a political scientist, a human rights advocate, and Chair of the Committee on Human Rights of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The obvious questions that we might ask ourselves are: How does respect for human rights advance science and how does science benefit the promotion of human rights?

Science is both human and humane; as one of the most elevated of human activities, it allows the highest instincts and special features of our species to flourish. Science is also humane, in that it is compassionate and benefits humanity in many ways.

The realm of human rights is more mixed. It is very broad including the rights to adequate diet and shelter and respect and education. It also addresses deliberate abuses of people: inhumane actions against other humans. Nature can be devastating—depriving us of health or home or life. But the special feature of human rights violations—those that appall and anger us—are the brutal offenses deliberately inflicted on human beings by their fellow man. And maybe worst of all, in terms of the consequences of such offenses and the sense of violation felt by the victims, are the human rights abuses that are sanctioned or ordered by human institutions; governments most frequently but also organized insurgent groups and other collectivities opposed to the rights of others – offenses that, increasingly, seem to monopolize our daily news.

I want to focus on these, in part to give my brief time some focus, in part because I am a political scientist, and in part because these pose some special problems for the role of science. I want to look at why and how science needs protection from such abuses and from the opposite perspective, what science can do to mitigate such abuses.

Why do scientists need protection against governmental abuse to ply their own trade? The practice of science involves the right to conduct research and to share results with professional colleagues through free communication and travel. We need to practice our profession without governmental abuse of our intellectual and political freedoms. When scientists and scientific societies challenge human rights abuses, they defend the victims of such abuse as well as their own interests in furthering scientific progress.

Let me say just a bit about the Committee on Human Rights of the National Academies in this regard. Its main role is to defend the rights of scientists, medical professionals and engineers. In so doing, it illustrates what scientists and scientific organizations can do to further practice of science, but also some of the complexities of dealing with governmental abuse. The Committee focuses on grave abuses by governments of the rights of individual scientists, medical professionals, and engineers—abuses sometimes perpetrated because of their scientific or medical work but, more often, for the nonviolent exercise of their civil and political rights.

Our interventions draw upon the nature and prestige of science and the reputation of scientists as intelligent, objective individuals who are committed to finding and speaking truth. We ask governments to release our imprisoned colleagues or, at a minimum, to offer them fair and transparent legal recourse.

Using the prestige of science. A number of years ago there was a major controversy at Harvard about the living wage. Various categories of employees argued that the university was violating state law and Harvard employees' human right to a decent livelihood. There were many demonstrations by workers, unions, and students. One group I particularly remember marched through Harvard Yard, accompanied by drummers and a brass band, and carrying banners that read, "String Theorists for a Living Wage." String theory, I assume, does not have implications for wage policies. But those scientists were exercising their civic right to take a stand on the wage issue and using their scientific prestige to argue a human rights position. Scientists are independent thinkers. That makes them more likely to speak out on matters beyond their science and gives them prestige when they so do. It is not accidental that the National Academy's Committee on Human Rights was first established about thirty two years ago, primarily in response to violations of the rights of Andrei Sakharov when he spoke out against Soviet human rights abuses.

Scientific inquiry transcends national boundaries and it is a model for cooperation and mutual respect among scientists who may differ in other ways—nationality, language, race, and ethnicity, and in their religious and ideological beliefs. The joint work of scientists across borders often contributes to more general human understanding.

In 1993, Torsten Wiesel, then chair of the Committee on Human Rights, and its director, Carol Corillon, created, along with national academies in several other countries, an International Human Rights Network of Academies and Scholarly Societies. Today, National Academies in some 70 countries work together on science-related human rights matters through our H.R. Network.

Violations of human rights, including those of scientists, are a world wide phenomenon—our own country being no exception. When we write to government X or Y, asking it (always politely but firmly) to stop particular abuses, sometimes the reply is, "Who are you to be making requests of us? Look at your own government." Our reply is that we do look at our own government through an even stronger lens and hold it to an even

higher standard of accountability. That said, the voices and solidarity of national academies around the world strengthen our stance.

The Committee also takes on more general tasks. Examples are initiating a recent workshop by the Institute of Medicine on Military Medical Ethics, earlier, a statement on the Health Hazards of Female Genital Mutilation., and earlier still we successfully encouraged the Academy of Engineering to convene a workshop on Better Detection and Clearance of Anti-Personnel Land Mines.

A more specific example of the use of science to transcend conflicts among peoples or nations is that of the Israeli-Palestinian Science Organization, which, five years ago, the National Academies helped foster and our Committee has helped run. IPSO, as the organization is called, is a boundary-breaking institution that has funded almost a dozen cooperative scientific research projects in the region. This illustrates in one case how science can transcend conflict, but also the difficulty of so doing. The program remains hostage to other forces—especially political—and particularly in the current situation. IPSO is purely scientific in what it supports, except that it supports cooperation of Israelis and Palestinians, and that is political, at least right now.

In addition to national academies, our Committee works with other human rights and international organizations, and we look forward to contributing to the work of Mona Younis and her staff on the innovative and far-reaching activities of the AAAS Science and Human Rights Coalition.

#### Promoting human rights to end governmental abuse -- by doing science.

Progress in how human beings live depends heavily on science—often applied science with a basis in more abstract scientific research. When science prospers, humanity benefits. Progress in medicine, and agriculture, and technology derived from scientific research and its applications has created vast improvements in human life. We must also be mindful of issues such as who will benefit, will there be unanticipated side effects, and can the technology be exploited for destructive purposes? That said, usually scientific progress is a force for good.

But let me stick to the theme of human rights as the abuse of human beings by other humans. Can the scientists who study the behavior of individuals, of ethnic and religious groups, the economy, or political institutions help us understand the nature and causes of human rights violations?

Social science is often juxtaposed against the hard sciences. We social scientists would argue that our science also is hard. But it is hard because our research materials are usually softer, as are our conclusions. So we make the data harder and the results more robust. Let me mention two features of the social science approach to human rights violations.

The goal of science, natural and social, is to correctly describe the facts, and reach the correct theory and understanding of them; to come to the “truth,” tentative though any

truth may always be. Evidence is judged objectively; theories by how well they explain the evidence.

Max Weber, the great social theorist of the early 20th century, in his famous essay, "Science as a Vocation," quotes Tolstoy's comment that science is meaningless because it gives no answer to the only question important for us: "what shall we do and how shall we live"? In the field of human rights, the distinction between the detached objectivity of science and the passionate issues of how we live is especially strong – and makes the application of scientific objectivity particularly difficult.

My discipline, as practiced, involves debates over facts and theories. Politics itself, as practiced, also involves conflicts over values. To take a current example from our own country, consider the issue of income inequality. The clash between political parties, or candidates, or groups of us, is, on the one hand, over facts and theories. The facts—how much income and wealth inequality is there in the US today? And theories—what is the cause of such inequalities? Fact plus theory should come together to guide action—what policies ought to be pursued in relation to action?

But the conflict is also about values—what is a just distribution of income and wealth? And of course we know that science and values intersect. People who hold one set of values are likely to believe one set of facts and one set of theories, while their normative opponents believe another set. Economics, though it is among the more scientific of the social sciences in terms of the nature of data and theories, is not immune to choice of data and theories based on values. As Harry Truman once put it, "If we laid all the economists in the country end to end, they would still point in different directions."

In our Committee's case work, we never find a government that admits that their actions are unjust or inhumane. They present little evidence, sometimes none, or they present so-called "evidence" that is not verifiable. The facts, which are what science begins with, are obscure. That does not stop us from pursuing cases, since the weight of evidence is often quite strong – though sometimes quite uncertain.

When human rights abuses are alleged, there are always at least two stories.

Those accused of human rights violations may claim the prisoner is guilty of heinous acts, that he has used or supported violence, or he has not been mistreated. The advocates of the prisoner say he was merely non-violently expressing legitimate criticism of the government, he has not been violent. Our committee has several current cases where one side says the prisoner is desperately ill, perhaps because of bad treatment in prison, and needs to be freed to get proper medical attention. The government says the prisoner is not very ill or not ill at all and is getting whatever medical attention is needed.

The response from science would be: let's find objective observers to review the evidence of past behavior; let's get some medical professionals to examine the prisoner – objective, unbiased, professional fact gathering. To scientists, that approach seems clear. The point is the point of science. Two scientists can disagree, but they must disagree in

public. Each can examine the evidence of the other, each is free to challenge and replicate the others' work. Secrecy has no place. Would that that were the case in the field of human rights.

The issue is more complicated in large-scale conflicts involving rights violations; the facts are often even harder to determine and there is always more than one story. But it is not just that the facts are hard to verify objectively, the observers' interpretations of the facts often differ, depending on the person's values. It is clear, at least to me and I think to most people, that there have been human rights violations on both sides of the Hamas-Israeli conflict.

Who started it? Whose goal is just or unjust? What in fact are the goals of the two sides? And on and on. Discussions of the events in Gaza often weigh the same facts quite differently from alternative value positions as to who is victim and who is violator? Whose goals are worthy or unworthy? Whose challenges to such goals are justified or unjustified? This is not an argument for throwing up one's hands and saying there is no objective way of determining the facts. Nor is there no value (if you will pardon the term) in pursuing analyses of what lead to the kind of antagonisms that result in such violence.

Another major problem is the importance of context. My work, for many years, has dealt with citizen activity and values across nations. It has been based on systematic surveys of samples of individuals in a range of countries. Comparable measurement across nations and languages are difficult, but they are getting better and more sophisticated; and it is, I think, appropriate to consider such work scientific. And we find similar patterns in the relationship between citizen social attributes—class and gender and so forth—and patterns of behavior. Nevertheless, the overall outcome varies from country to country, depending on historical developments or organizational structures such as the nature of the party system, or the religious composition of the nation, and on and on. So we find some general patterns, (I am too nervous to call them laws), but they somehow come out differently in different contexts. This is fine. It simply (or not so simply) means that we need a better understanding of the nature and effects of context.

Consider some general questions about human rights violations:

What explains terrorism? Why do some individuals give their lives to kill others, or certain organizations sponsor violence? There are many questions and some suggested answers out there: Is it foreign intervention? A sense of irrelevance or impotence? Deep-seated religious convictions? Hopelessness? Economic deprivation? These are all good questions to ask. But we are a long way from finding the answers. Or what explains governmental repression?

So many countries start out seemingly peaceful and committed to some form of open democracy. What sends them down the path to repressive, often brutal regimes? Long-standing internal divisions and enmities? Economic inequalities? Ambitious leaders using ethnic conflict to shore up their positions? These are some of the big

macro-questions. They will not be answered easily and maybe not fully, but it is the kind of knowledge we need and therefore must seek.

I raise all of these difficulties, not to argue that we throw up our social science hands and say it is too difficult to understand the general processes that lead to human rights violations, or that it is even harder to apply that knowledge. The problem is too important. So, let me end by offering some brief thoughts, though far from complete and far from authoritative, on where we have come and where are going.

1. Much has been done and is being done to use systematic social science to gather the facts of abuse. The Science and Human Rights Program of AAAS has pioneered the use of statistical and forensic studies of human rights violations, and there are growing possibilities for the use of geospatial technology. This tells us a lot about what has happened and is happening – much better than the impressionistic accounts which more easily reflect bias. There have been elaborate theories in various social science fields that try to explain what, on closer look, never happened. Knowing the facts is a good place to start in explaining them.

2. There is not, as yet, and won't be for a very long time, a unified theory or approach to the issue of the origin of behavior that is destructive of human rights. The approaches of many disciplines are needed. There is much work being done on individual behavior, ranging from neurological work on the nature of altruistic and aggressive behavior to more traditional analyses of the origins of values. Multiple methods are to be encouraged. Merging may come later.

3. Disciplinary boundaries are loosening. Economists are looking beyond traditional economics approaches and assumptions at behavioral economics—at matters that are explored in other social sciences. It is clear that such widening of scope is needed to understand a simple problem such as the meltdown of the U.S. economy, and will be of particular value for the harder problems associated with human rights.

4. In dealing with the actions of governments (or organized challenges to governments) one must study the origins of aggressive behavior in many locations. Grievances among the mass of the people need focus, and they take many forms—from economic inequality to religious commitments. The institutions that foster these grievances need attention. And, of course, the self-serving actions of political leaders who build support by inciting group resentments cannot be ignored.

5. There are many ways to study social reality. My work and that of many social scientists is quantitative—careful measurement, statistical analysis. We seek general patterns—theories that work across space and time. But context matters too. Qualitative anthropological and historical understanding must be blended with more systematic quantitative work. Science seeks theories and generalizations that hold across borders, but check with country experts before applying the knowledge—or we'll continue to get into the same kinds of trouble we've experienced in the past.

This is not easy. To return to the role of values and multiple perspectives, one cannot begin to understand the current crisis over Gaza without understanding the history that brings it about. But which history? If economists would point in different directions over tax or spending policy; historians of Israel and Palestine point in different directions with more lethal weapons.

Let me end here by applauding the commitment of the AAAS and other concerned organizations to the application of science and scientific study to human rights violations. Science is committed to finding the truth. It is not easy, but the truth over the long run will help us make the world a better place—a place we value. We must continue that struggle.