Doing Social Science in Anti-Scientific Times

DOUGLAS S. MASSEY

We currently inhabit an era of remarkable hostility to scientific thought expressed at all levels of American society. In the contemporary United States, scientific facts are routinely suppressed by those in power; public schools are forced to teach intelligent design as a valid scientific theory; individual scientists are singled out for harassment by members of congress; and government scientists are punished for doing their jobs. In such a climate, it is hardly surprising that the study of science has become so unpopular that we are forced to import a growing fraction of our working scientists from abroad. Whereas in 1966, foreign-born persons received just 23% of all science and engineering Ph.D.s, by the year 2000, 39% of such degrees were earned by foreigners.

If doing science has become difficult, the pursuit of social science has become even more problematic given its inevitable connection to human values, behaviors, and social institutions. Recently the President of the American Sociological Association, Michael Burawoy, called for a more vigorous public sociology in which sociologists themselves participate directly in ongoing political debates. As he put it, "in times of market tyranny and state despotism, sociology—and in particular its public face—defends the interests of humanity" (Burawoy, 2005: 24). Although I agree with Burawoy that sociologists must stand up and make themselves heard in public debates, I am less enthusiastic about his call for a more partisan politics. In this essay, I consider the nature of anti-scientific climate prevailing in the United States, discuss the origins of this hostility, and present an alternate vision for how sociologists, as social scientists, should respond to the challenges of doing social science in anti-scientific times.

The Present Climate

The current campaign against science represents a well-coordinated sectarian effort that seeks to replace scientific knowledge with religious dogma in classrooms throughout the country. Led by ideologues associated with the Discovery Institute, religious

Douglas S. Massey is the Henry G. Bryant Professor of Sociology and Public Affairs at Princeton University. He is president of the American Academy of Political and Social Science and past president of the American Sociological Association and the Population Association of America. He can be reached at dmassey@princeton.edu.

conservatives seek to overthrow the theoretical foundations of modern biology and replace them with a theory of divine creation packaged as "Intelligent Design." According to the *New York Times*, "like a well-tooled electoral campaign, the Discovery Institute has a carefully crafted, poll-tested message, lively web logs—and millions of dollars from foundations run by conservatives like Howard and Roberta Ahmanson, Philip F. Anschutz, and Richard Mellon Scaife" (Wilgoren, 2005: 1).

These efforts have paid off. Half of all adults nationwide now believe that God created human beings in their present form within the last 10,000 years and 57% believe that the biblical account of creation is a better explanation of how human life originated than the theory of evolution (Polling Report, 2005). The effort to subvert science receives support at the highest levels of the U.S. government. When asked about the conflict between scientists and intelligent design advocates, President George W. Bush opined that "both sides ought to be properly taught" (Wilgoren, 2005: 1).

In response to this unprecedented politicization of science, 20 Nobel Prize-winning scientists released a joint statement accusing the Bush administration of manipulating "the process through which science enters into its decisions...by placing people who are professionally unqualified or who have clear conflicts of interest in official posts and on scientific advisory committees; by disbanding existing advisory committees; by censoring and suppressing reports by the government's own scientists; and by simply not seeking independent scientific advice" (Union of Concerned Scientists, 2004a).

A follow-up report concluded that "the scope and scale of the manipulation, suppression, and misrepresentation of science by the Bush Administration are unprecedented" (Union of Concerned Scientists, 2004b). From the denial of global warming to the suppression of data showing high levels of arsenic in drinking water, science is under official attack as never before. According to the President's own science advisor during the 2000 election campaign, actions taken to cut scientists down to size are long overdue. In a recent interview with NPR's Terry Gross, former Pennsylvania Republican Congressman Robert Walker said that:

> Some of the problems we have had in the past is that scientists have not had the kind of review of their science that should be done; and in recent years there has even been suspicion risen about the various peer review panels that scientists depend upon, about whether or not some of them have developed a political agenda, in large part because of the kinds of people who are picked to go on those peer review panels. And so the Bush Admin has attempted to provide a better review of science.

When Terry Gross asked former what he meant by "the kinds of people picked to go on review panels," the former Chair of the House Science Committee answered:

> A lot the scientists come out of a lot of the large universities where there is basically a left wing political bias on campus and scientists in their science may not see themselves as promoting a political agenda by they have in fact bought into a political agenda inside the atmosphere in which they operate (National Public Radio, 2005).

If the physical and biological sciences are under attack, the threats to social science can only be worse, as studies of human cognition, behavior, and social organization invariably touch on issues of politics and morality. The vulnerability of social science is evident in the growing interference of congress in the scientific peer review process. According to the *New England Journal of Medicine*, in 2003 the National Institutes of Health had to respond to an average of about one request per week from members of Congress concerning the details of specific grants (see Drazen and Ingelfinger, 2004).

Attempts have even been made to de-fund specific projects from the floor of the House. In July of 2003, Republican Congressman Pat Toomey of Pennsylvania attempted to amend an appropriations bill to halt funding on four NIH grants, all behavioral and three related to risky sexual behavior (Council of Social Science, 2005). In August, the Director of the Bureau of Justice Statistics was demoted and put on a track for early retirement because he insisted on the public release of a report that showed differential treatment of minority and white drivers by police after traffic stops (Bessette, 2005).

I myself recently fell victim to the Bush administration's proclivity to sacrifice scientific integrity to conservative ideology. In the fall of 2003 I was cordially invited by the United Nations Educational, Social, and Cultural Organization (UNESCO) to prepare a chapter for a volume on international migration it was planning to publish. Then, suddenly, in the spring of 2004 I was summarily uninvited. As a condition of its reentry to UNESCO after an 18-year boycott, the United States insisted on its right to approve all agency contracts with U.S. citizens. When my name was vetted, however, the political appointees of the Bush administration informed the General Director of UNESCO that I was unacceptable. I never received a formal letter of rejection, just a sheepish e-mail message saying my name had been withdrawn. Back channel communications let me know that what Bush's people found objectionable was not my science, but a series of critical articles on U.S. immigration policy I had published (Massey, 2006).

The attitude of the current administration was summed up by a senior advisor to President Bush in an interview with the journalist Ron Suskind for the *New York Times Magazine*. He said that scientists were "in what we call 'the reality-based community,' which he defined as people who 'believe that solutions emerge from your judicious study of discernable reality.'.... That's not the way the world really works anymore.... We're an empire now, and when we act, we create our own reality" (Suskind, 2004). I found these words chilling, for they suggest that we are moving into an era of faith-based social policy wherein reality-based thinkers such social, biological, and physical scientists are derided as antiquated relics of the past.

Why Science Is So Threatening

Faith-based social policy is ultimately grounded in fundamentalism, a reactionary impulse that is properly seen as a political rather than a religious movement (Bruce, 1992). It is not a survival from an earlier period of faith and observance, but a quintessentially modern phenomenon. It is an ideological crusade against specific elements of the modern world—the steady erosion of social privilege on the basis of race, ethnicity, and gender; the conferral of rights, respect, and power on formerly excluded peoples and groups; the determination of truth by reason and evidence rather than tradition; the receipt of knowledge through skeptical inquiry rather than dogmatic faith; and the evolution of equality at the expense of hierarchy.

Scholars who have systematically studied fundamentalist movements throughout the world have discerned four basic principles common to them all (Marty and Appleby, 1995). The first is *selectivity*: fundamentalists are choosey about *which* concepts and practices they adopt from a religious tradition, carefully selecting only those scriptures, practices, and interpretations that are supportive of their authoritarian world view. The second is *Manichean moralism*, viewing the world as starkly divided between the forces of right and wrong, light and dark, good and evil, God and Satan. Third is absolutism, the refusal to compromise. Although fundamentalists may carefully select which aspects

of religious tradition to revere, they insist on the absolute truth of what they do choose. The final principle is *millenialism*—the belief that history is moving toward a day of judgment, an Armageddon, so that investments in the future are not only unnecessary, but immoral if they help put off the end of days.

Although the fundamentalist reaction against modernity is commonly expressed in religious terms, it is not confined to religious expression. In addition to the *Christian fundamentalists* who seek to convert the United States into a theocracy, I have identified four other fundamentalisms that have achieved considerable power and influence in American life (Massey, 2005). *Market fundamentalism* holds that markets exist autonomously, if not by divine creation then as states of nature, and its adherents have an unshakable faith in miraculous powers of the market in the absence of government interference. *Constitutional fundamentalism* takes the U.S. Constitution as a holy text, not to be modified or expanded but to by applied strictly according to the original intent of the men who wrote it, notwithstanding the fact one of the original intents was to preserve the institution of chattel slavery. *Platonic fundamentalism* derives from the views of the philosopher Leo Strauss, who argued the classic philosophers of antiquity contained timeless truths that could only be appreciated by a natural aristocracy through close reading and devoted study, by which they would acquire virtue and the right to remake the world in its image. Finally, *libertarian fundamentalism* worships at the altar of freedom and put the rights of the individual above all others, viewing all government actions beyond those minimally needed for public security and national defense as inherently tyrannical.

The common thread of all these fundamentalisms is blind faith in a simple idea—the Bible, the market, the constitution, the classics, liberty—and the willing suspension of skepticism about its application in the real world (Almond et al., 1995). Although most Americans do not realize it, fundamentalists of one sort or another now control all three branches of government and most executive agencies. Christian fundamentalists determine the nation's social policy; market fundamentalists run the economy; Platonic fundamentalists dominate the military and state department; libertarian fundamentalists preside over environmental and regulatory policies; and constitutional fundamentalist hold sway in the judiciary (Massey, 2005).

Given their embrace of simple, all-encompassing truths, it is not hard to see why science is so threatening to fundamentalists. It is no accident that the rise of fundamentalism to prominence in American life has been accompanied by a resurgence of attacks on science, for science is first and foremost a method for determining the truth about the way the world works. Unlike the revealed truths that appeal to fundamentalists, scientific truth is grounded in the rules of logic and the weight of empirical evidence. Science is inherently skeptical and its practitioners are trained to question the received wisdom, persistently devising new and clever ways of testing accepted propositions. Scientific truth is thus tentative and in a constant state of flux. What is believed to be true about the world today might change tomorrow based on new evidence and clearer thinking. Whereas once we observed sunrise and sunset and saw the sun revolve around the earth, we now observe the same thing and see the earth revolve around the sun, a concept that was deeply threatening to fundamentalist church leaders in the sixteenth century and actively suppressed when it was first presented as scientific fact.

At its frontiers, scientific knowledge is always the subject of vigorous debate. The only firm principles that scientists agree on are epistemological—the methods and procedures by which claims and counterclaims about the real world are to be adjudicated

and, at least for the moment, settled. Scientific facts and theory are whatever a working majority of scientists at any point in time agree they are, and they come to this agreement on the basis of consistency with logic and evidence. Scientific findings are thus a very public and democratic form of knowledge. The data and methods marshaled in support of a scientific proposition are openly published after initial scrutiny and criticism by a panel of skeptical peers. Once published, scientific data are subject to replication and reformulation by others. The only essential feature of a scientific proposition is that it is potentially falsifiable through empirical test.

Social Science in the Public Interest

The fundamentalists who now control our government and who exert even more power in American society do not like evolving truths and falsifiable propositions. At this juncture in American history, it is critically important to stand up and defend the principles of scientific thought and empirical investigation and to insist that scientific methods be applied to understand human behavior and social organization, and that the resulting findings are widely disseminated, discussed, and, when appropriate, applied to help solve social problems. I do not, however, believe that politics should trump science, but that science should inform and enlighten social policy.

In my own career as a sociologist I have consciously sought to separate my work as a social scientist from my behavior as a political actor. First and foremost I want to get the social science done correctly and at the highest possible level. I write proposals for competitive peer-review for grants to support research on topics of interest to me as a sociologist, such as immigration, segregation, education, and stratification. With whatever support I am able to garner, I carry out empirical research in collaboration with colleagues, postdocs, and students to build theories and test hypotheses using the best available methods and the most reliable data I can muster. I then collaborate with my colleagues to write up the results in scientific papers and submit them at the earliest possible opportunity to peer-reviewed journals.

The latter step is especially important because we all, as human beings, are blind to our own weaknesses and naturally inclined to be critical of facts that contradict our preconceptions while accepting of those that confirm them. The peer-review process, while not perfect, provides a check on self-delusion and over the long run produces more accurate and better understanding of the social world. Once a paper is published in a peer-reviewed journal, however, I feel I have earned the right to disseminate its findings widely and, where appropriate, bring them to bear in ongoing public debates. After all, it is not just me who though the paper was good—it also passed by a set of reviewers and an editorial committee.

If a paper's results are especially relevant to some salient political issue, I often work with the public affairs office at my university to prepare a press release, or alternative, I prepare an op-ed article for a major newspaper. Sometimes the press release produces no interest from reporters and yields little more than a short item in the back pages of a regional newspaper. At other times, however, the press release or the op-ed article generates tremendous interest that translates into front-page stories in multiple newspapers as well as interviews on TV and radio and hours spent in give-and-take with reporters.

Once I have published a significant number of studies in refereed journals on a particular topic, I begin to feel more confident and justified in trying to elucidate "the big picture" for a more general audience. This I accomplish in one of two ways. I may write

an extended article for a magazine such as the *American Prospect* or *The Nation* to outline my take on a social problem and bring the results of my research to bear in suggesting policy actions. If I believe that the subject requires a fuller treatment, however, and a more permanent place in the public dialogue than a single article can afford, I attempt to weave together the disparate strands of my published research into a book-length treatment for general audience. As with articles in popular magazines and newspapers, books generate attention and publicity when they are published; but unlike articles they have a longer shelf life and provide a continuing basis for discussion, debate, and policy formulation over the years.

I can cite at least one personal example of how my seemingly narrow-minded dedication to social science has led to concrete political outcomes that would not have occurred had I taken a more "political" route from the start. Like many sociologists, I am deeply troubled by the persistence of racial prejudice and discrimination in the United States, especially as they affect African Americans in U.S. housing markets. The 1968 Fair Housing Act, in theory, prohibited racial discrimination in the rental and sale of housing in the United States, but because of a compromise brokered to overcome a southern filibuster, the Act's enforcement provisions were diluted and federal authorities were largely dis-empowered from acting directly to identify and prosecute instances of housing discrimination.

During the 1980s, civil rights activists and liberal legislators became increasingly aware of the deficiencies of the Fair Housing Act and many bills were submitted to bolster its enforcement provisions. As a member of the ASA, I could have written a resolution condemning racial discrimination in housing and calling on the association to support these bills. I might have presented my resolution to attendees at the Annual Business Meeting and probably received a favorable ratification from the floor. The resolution might then have been gone as a referendum to the entire membership and I suspect that the ASA would have voted to go on record as opposing racial discrimination in housing markets and calling for more vigorous enforcement of fair housing laws.

But so what? With all due respect to my colleagues in the profession, the political clout of the ASA on Capitol Hill is minuscule. Inside the beltway, the sad reality is that few people pay any attention to the political stands collectively taken by sociologists. I doubt that a working majority of legislators would ever even have learned that the ASA had taken an official position on amendments to strengthen the Fair Housing Act. Personally, I might have felt very self-satisfied and "politically correct" to have sponsored the formal resolution to burnish my anti-racist credentials, and ASA members might have felt very virtuous having voted for it. But what really would have changed? I suspect very little.

Instead of going the political route, beginning in 1984 I pursued a social scientific route. I began by obtaining competitive support from the National Institute of Child Health and Human Development to study the causes and consequences of segregation in U.S. cities, and using this support as a foundation I was able to leverage additional funding from the Hewlett and Guggenheim Foundations. From 1985 through 1995 I published several dozen refereed articles on the patterns, determinants, and effects of segregation among Latinos, Blacks, and Asians in U.S. metropolitan areas, many co-authored with my colleague Nancy Denton, who served as a postdoctoral research associate on the project (see Charles 2004 for a review of many of these papers).

After outlining our theoretical and methodological approach (Massey, 1985; Massey and Denton, 1985), our first major study on the levels, trends, and patterns of segrega-

tion was published in the *American Sociological Review* in 1987 (Massey and Denton, 1987). Concurrent with its publication, we worked with the University of Chicago's News and Information Office to prepare a press release. Much to our surprise, the fact that blacks continued to be more segregated from non-Hispanic whites than other groups proved to be big news around the country. The fact that two decades after the Fair Housing Act little progress toward racial integration in housing had been made became a front page story, with articles appearing in newspapers such as the *New York Times*, the *LA Times*, the *Philadelphia Inquirer*, the *Dallas Morning News*, *USA Today*, and many other dailies, including the *Washington Post*, where the story was read by the Chief of Staff for Representative Henry B. Gonzalez, then chair of the House Subcommittee on Housing and Community Development, which happened to be planning hearings on legislation to strengthen the Fair Housing Act.

Congressional staff members quickly tracked us down and in January of 1988, Nancy and I found ourselves invited to Washington, D.C. by Representative Gonzalez to offer testimony on behalf of a bill that was debated and ultimately passed in August of 1988 as Fair Housing Amendments Act. This Act has been called "the most important development in housing discrimination law in twenty years" (Schwemm, 1990). It eliminated provisions of the 1968 Act that had discouraged victims from filing suit, increased the risks and penalties to would-be discriminators, expanded the federal government's powers of investigation and adjudication, and granted greater authority to the Attorney General to pursue cases on behalf of individual plaintiffs. After testifying, Nancy and I received handwritten notes of thanks from Representative Gonzalez, who said "how grateful we all are for your great contribution."

Between 1988 and 1992 Nancy and I continued to move forward our research agenda on segregation, focusing increasingly on the unique situation of African Americans. A series of articles published in peer-reviewed journals developed a new multi-dimensional model for measuring segregation (Massey and Denton, 1988a); showed that black segregation was not mitigated by suburban residence (Massey and Denton, 1988b); introduced the concept of "hypersegregation" (Massey and Denton, 1989); and demonstrated how black hypersegregation led directly to concentrated neighborhood poverty (Massey and Eggers, 1990) and thereby acted forcefully to perpetuate black disadvantage over time and across the generations (Massey, Gross, and Eggers, 1991).

By 1992, Nancy and I felt the time had come to tie everything together in a book-length treatment that would offer a comprehensive argument outlining segregation's pernicious effects on the status and well-being of African Americans. By writing a book, we hoped to have a more enduring influence on the debate then raging about the causes and consequences of the "urban underclass." Our efforts culminated in early 1993 with the publication of *American Apartheid: Segregation and the Making of the Underclass* (Harvard University Press), which went on to win the ASA's Distinguished Publication Award and the Population Section's Otis Dudley Duncan Award.

In the years since the book's publication, Nancy and I, both together and apart, have been invited to address numerous civic groups, fair housing organizations, congressional committees, governmental commissions, and academic audiences of all sorts. The book's most concrete policy impact, however, occurred early in the Clinton Administration after the new Secretary of Housing and Urban Development, Henry G. Cisneros, read it and followed up by assigning it to be read by Assistant Secretaries and senior staff members at HUD. He then brought me and Nancy to Washington to deliver a tutorial on segregation and fair housing enforcement to senior officials in the Office of the Secre-

tary. During 1993–1994, under Secretary Cisneros's leadership, HUD worked to implement virtually all of the policy recommendations we laid out in the last chapter of the *American Apartheid*, yielding a tangible increase in fair housing enforcement and record settlements in discrimination cases.

Upholding Social Science

The foregoing personal and professional experiences reaffirm my belief that, for sociologists contemplating action on behalf of a cherished political cause, less can often be more. By foregoing daily involvement in the ongoing politics of race and immigration and not seeking to drag the field of sociology into taking a position on specific pieces legislation, I was able to build a record of scientific research that was much more effective in advancing the causes I believed in, outstripping what I could have possibly achieved had I authored ASA resolutions on behalf of these causes or personally picketed in front of the Capitol or White House.

As George Orwell once said, "if liberty means anything at all, it means the right to tell people what they do not want to hear." We cannot expect those now in power to step lightly aside, of course, for Orwell also noted that "in a time of universal deceit, telling the truth is a revolutionary act." Scientists who insist on speaking truth to power are sure to be attacked as immoral, unpatriotic, and subversive—hence the critical importance in this day and age of an independent publishers of social science.

In the long run, however, the dissemination of information based on sound social science—however inconvenient or unpopular it may be with those presently in power—will serve as the highest form of patriotism. If the essence of patriotism is to make sacrifices on behalf of one's country, then fighting the current retreat from science is patriotic on at least two counts. First, in the twenty-first century the United States finds itself competing in a global economy where wealth is created not by the growing of food or the production of goods, but by the generation of knowledge, the manipulation of information, and creating of new technology in the service of other human beings. The United States owes its current hegemony to the remarkable support it has provided to scientists throughout its history, both in terms of material resources and the political freedom to ask difficult and at times unpopular questions.

In a knowledge-based economy, spending on science and technology is not a frivolous luxury or an expendable expense, but a crucial investment in future economic growth and national wealth. Teaching people the scientific method and how to apply it to study the physical, biological, and social worlds that surround them is a fundamental feature of human capital formation and is perhaps the most important investment a government can make. The suppression of scientific inquiry and the substitution of dogma for sound research and theory are not the traits of a great nation, but one on a path of self-destruction that it is every patriot's duty to oppose.

Resisting the current anti-scientific climate is also patriotic because the replacement of critical scrutiny and skepticism with reactionary, self-delusional dogma is a sure formula for squandering America's material and moral resources. History teaches us that when people in power choose see the world as they wish it to be rather than how it is, calamity inevitably follows; and given the size and power of the United States in the 21st century, the potential for calamity is immense. The current quagmire in Iraq is just a small taste of the pain, suffering, and chaos we can expect to encounter in years to come

if our leaders persist in denying logic, reason, and evidence—the constituent elements not only of good science, but good social policy.

References

Almond, Gabriel A., Emmanuel Sivan, and R. Scott Appleby. 1995. "Fundamentalism: Genus and Species." Pp. 399–424 in Martin E. Marty and R. Scott Appleby, eds., *Fundamentalisms Comprehended* (Chicago, IL: University of Chicago Press).

Bessette, Joseph M. "The Injustice Department: Why was Lawrence Greenfeld fired?" *The Weekly Standard*, October 17, Volume 11(5).

Council of Social Science Associations. 2005. "NIH Peer Review Threatened: House Barely Defeats Attempt to Stop NIH Grants." (Washington, D.C.: Council of Social Science Associations). http://www.cossa.org/CPR/toomey.htm

Drazen, Jeffrey M., and Julie R. Ingelfinger. 2003. "Grants, Politics, and the NIH." *New England Journal of Medicine* 349: 2259–2261.

Lawrence, Bruce. 1992. *Defenders of God: The Fundamentalist Revolt against the Modern Age* (San Francisco, CA: Harper and Row), p. 100.

Marty, Martin E. and R. Scott Appleby. 1995. *Fundamentalisms Comprehended* (Chicago, IL: University of Chicago Press).

Massey, Douglas S. 1985. "Ethnic Residential Segregation: A Theoretical Synthesis and Empirical Review." *Sociology and Social Research* 69: 315–350.

Massey, Douglas S. and Nancy A. Denton. 1985. "Spatial Assimilation as a Socioeconomic Outcome." *American Sociological Review* 50: 94–105.

———. 1987. "Trends in the Residential Segregation of Blacks, Hispanics, and Asians." *American Sociological Review* 52: 802–825.

———. 1988a. "The Dimensions of Residential Segregation." *Social Forces* 67: 281–315.

———. 1988b. "Suburbanization and Segregation in U.S. Metropolitan Areas." *American Journal of Sociology* 94: 592–626.

———. 1989. "Hypersegregation in U.S. Metropolitan Areas: Black and Hispanic Segregation along Five Dimensions." *Demography* 26: 373–393.

———. 1993. *American Apartheid: Segregation and the Making of the Underclass* (Cambridge: Harvard University Press).

Massey, Douglas S., Andrew B. Gross, and Mitchell L. Eggers. 1991. "Segregation, the Concentration of Poverty, and the Life Chances of Individuals." *Social Science Research* 20: 397–420.

National Public Radio. 2005. Terry Gross Interview with Republican Lobbyist Robert Walker on Bush and Science. (Washington, D.C.: National Public Radio). http://www.npr.org/templates/story/story.php?storyId=4848811

Polling Report. 2005. Science and Nature. PollingReport.com. Website accessed November 4, 2005: http://www.pollingreport.com/science.htm

Schwemm, Robert G. 1990. *Housing Discrimination: Law and Litigation.* (New York: Clark Boardman Company).

Suskind, Ron. 2004. "Without a Doubt." *The New York Times Magazine*, October 17.

Union of Concerned Scientists. 2004a. "Scientific Integrity in Policy Making: Investigation of the Bush Administration's Abuse of Science." (Washington, D.C.: Union of Concerned Scientists).

———. 2004b. Scientific Integrity in Policy Making: Further Investigation of the Bush Administration's Abuse of Science. Washington, D.C.: Union of Concerned Scientists.

Wilgoren, Jodi. 2005. "Politicized Scholars Put Evolution on the Defensive." *New York Times*, August 21, Page 1.