



Nebraska History posts materials online for your personal use. Please remember that the contents of *Nebraska History* are copyrighted by the Nebraska State Historical Society (except for materials credited to other institutions). The NSHS retains its copyrights even to materials it posts on the web.

For permission to re-use materials or for photo ordering information, please see:

<http://www.nebraskahistory.org/magazine/permission.htm>

Nebraska State Historical Society members receive four issues of *Nebraska History* and four issues of *Nebraska History News* annually. For membership information, see:

<http://nebraskahistory.org/admin/members/index.htm>

Article Title: William Jennings Bryan's Last Campaign

Full Citation: Stephen Jay Gould, "William Jennings Bryan's Last Campaign," *Nebraska History* 77 (1996): 177-183

URL of article: http://www.nebraskahistory.org/publish/publicat/history/full-text/NH1996Bryan_Last_Campn.pdf

Date: 4/30/2013

Article Summary: Gould's essay, originally published in 1987, suggests that Bryan viewed his battle against evolution as an extension of the populist thinking that had inspired his life's work. Gould accepts Bryan's sincerity even though he questions Bryan's arguments.

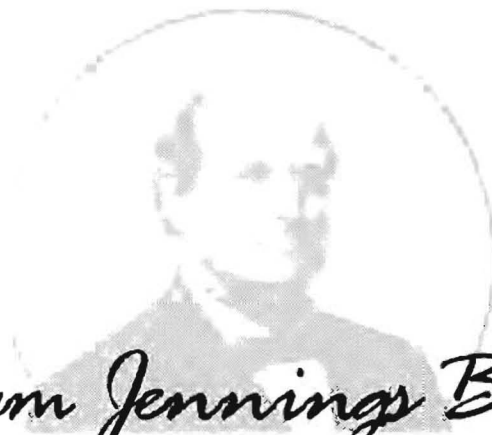
Cataloging Information:

Names: William Jennings Bryan, Clarence Darrow, John T Scopes

Place Names: Dayton, Tennessee

Keywords: Scopes trial; evolution; Darwinism; John T Scopes; Vernon L Kellogg, *Headquarters Nights*; Benjamin Kidd, *The Silence of Power*; William Jennings Bryan, *The Prince of Peace*; Bryan, "Last Evolution Argument"

Photographs / Images: Bryan addressing the court at the trial of John T Scopes; a Scopes trial cartoon by Guy R Spencer (*Omaha World-Herald*, July 11, 1925); Rhea County Courthouse, where the Scopes trial was held; Scopes being arraigned



William Jennings Bryan's Last Campaign

I have several reasons for choosing to celebrate our legal victory over "creation science" by trying to understand with sympathy the man who forged this long and painful episode in American history—William Jennings Bryan. In June 1987 the Supreme Court voided the last creationist statute by a decisive 7-2 vote, and then wrote their decision in a manner so clear, so strong, and so general that even the most ardent fundamentalists must admit the defeat of their legislative strategy against evolution. In so doing, the Court ended William Jennings Bryan's last campaign, the cause that he began just after World War I as his final legacy, and the battle that took both his glory and his life in Dayton, Tennessee, when, humiliated by Clarence Darrow, he died just a few days after the Scopes trial in 1925.

My reasons range across the domain of Bryan's own character. I could invoke rhetorical and epigrammatic expressions, the kind that Bryan, as America's greatest orator, laced so abundantly into his speeches—Churchill's motto for World War II, for example: "In victory: Magnanimity." But I know that my main reason is personal, even folksy, the kind of one-to-one motivation that Bryan, in his persona as the Great Commoner, would have applauded. Two years ago, a colleague sent me an ancient tape of Bryan's voice. I expected to hear the pious and

By Stephen Jay Gould

polished shoutings of an old stump master, all snake oil and orotund sophistry. Instead, I heard the most uncanny and friendly sweetness, high pitched, direct, and apparently sincere. Surely this man was more than what H. L. Mencken, reporting the Scopes trial for the *Baltimore Sun*, called "a tinpot Pope in the Coca Cola belt."

I wanted to understand a man who could speak with such warmth, yet talk such Yahoo nonsense about evolution. I wanted, above all, to resolve a paradox that has always cried out for some answer rooted in Bryan's psyche. How could this man, America's greatest populist reformer, become, late in life, her arch reactionary?

For it was Bryan who, just one year beyond the minimum age of thirty-five, won the Democratic presidential nomination in 1896 with his populist rallying cry for abolition of the gold standard: "You shall not press down upon the brow of labor this crown of thorns. You shall not crucify mankind upon a cross of gold." Bryan who ran twice more, and lost in noble campaigns for reform, particularly for Philippine independence and against American imperialism in the election of 1900. Bryan, the

pacifist who resigned as Wilson's secretary of state because he sought a more rigid neutrality in the First World War. Bryan who stood at the forefront of most progressive victories in his time: woman suffrage, the direct election of senators, the graduated income tax (no one loves it, but can you think of a fairer way?). How could this man have then joined forces with the cult of biblical literalism in an effort to purge religion of all liberality, and to stifle the same free thought that he had advocated in so many other contexts?

This paradox still intrudes upon us because Bryan forged a living legacy, not merely an issue for the mists and niceties of history. For without Bryan, there never would have been antievolution laws, never a Scopes trial, never a resurgence in our day, never a decade of frustration and essays for yours truly, never a Supreme Court decision to end it all. Every one of Bryan's progressive triumphs would have occurred without him. He fought mightily and helped powerfully, but women would be voting today and we would be paying income tax if he had never been born. But the legislative attempt to curb evolution was his baby, and he pursued it with all his legendary demoniac fury. No one else in the ill-organized fundamentalist movement had the inclination, and surely no one else had the legal skill or political clout. Ironically, fundamentalist legislation against evolution is the only truly distinctive and enduring brand that Bryan placed upon American history. It was Bryan's movement that finally went down in flames last June in Washington.

Stephen Jay Gould teaches Zoology and Geology at Harvard University. The essay is reprinted with permission from Natural History, November 1987. Copyright the American Museum of Natural History, 1987

The paradox of shifting allegiance is a recurring theme in literature about Bryan. His biography in the *Encyclopaedia Britannica* holds that the Scopes trial "proved to be inconsistent with many progressive causes he had championed for so long." One prominent biographer located his own motivation in trying to discover "what had transformed Bryan from a crusader for social and economic reform to a champion of anachronistic rural evangelism, cheap moral panaceas, and Florida real estate" (L. W. Levine, *Defender of the Faith: William Jennings Bryan, the Last Decade*. New York: Oxford University Press, 1965).

Two major resolutions have been proposed. The first, clearly the majority view, holds that Bryan's last battle was inconsistent with, even a nullification of, all the populist campaigning that had gone before. Who ever said that a man must maintain an unchanging ideology throughout adulthood; and what tale of human psychology is more familiar than the transition from crusading firebrand to diehard reactionary. Most biographies treat the Scopes trial as inconsistent embarrassment, a sad and unsettling end. The title to the last chapter of almost every book about Bryan features the word "retreat" or "decline."

The minority view, gaining ground in recent biographies and clearly correct in my judgment, holds that Bryan never transformed or retreated, and that he viewed his last battle against evolution as an extension of the populist thinking that had inspired his life's work (in addition to Levine, cited previously, see Paolo E. Coletta, *William Jennings Bryan*, vol. 3, *Political Puritan*. University of Nebraska Press, 1969; and W. H. Smith, *The Social and Religious Thought of William Jennings Bryan*, Coronado Press, 1975).

Bryan always insisted that his campaign against evolution meshed with his other struggles. I believe that we should take him at his word. He once told a cartoonist how to depict the harmony of his life's work: "If you would be entirely



Bryan addresses the court at the trial of John T. Scopes in Dayton, Tennessee. Courtesy Bryan College, Dayton, Tennessee

accurate you should represent me as using a double-barreled shotgun, firing one barrel at the elephant as he tries to enter the treasury and another at Darwinism—the monkey—as he tries to enter the schoolroom." And he said to the Presbyterian General Assembly in 1923: "There has not been a reform for twenty-five years that I did not support. And I am now engaged in the biggest reform of my life. I am trying to save the Christian Church from those who are trying to destroy her faith."

But how can a move to ban the teaching of evolution in public schools be deemed progressive? How did Bryan link his previous efforts to this new strategy? The answers lie in the history of Bryan's changing attitudes toward evolution.

Bryan had passed through a period of skepticism in college. (According to one story, more than slightly embroidered no doubt, he wrote to Robert G. Ingersoll for ammunition but, upon receiving only a pat reply from his secretary, reverted immediately to orthodoxy.) Still, though he never supported evolution, he did not place opposition high on his agenda; in fact, he evinced

a positive generosity and pluralism toward Darwin. In "The Prince of Peace," a speech that ranked second only to the "Cross of Gold" for popularity and frequency of repetition, Bryan said:

I do not carry the doctrine of evolution as far as some do, I am not yet convinced that man is a lineal descendant of the lower animals. I do not mean to find fault with you if you want to accept the theory. While I do not accept the Darwinian theory I shall not quarrel with you about it.

(Bryan, who certainly got around, first delivered this speech in 1904, and described it in his collected writings as "a lecture delivered at many Chautauquas and religious gatherings in America, also in Canada, Mexico, Tokyo, Manila, Bombay, Cairo, and Jerusalem.")

He persisted in this attitude of *laissez faire* until World War I, when a series of events and conclusions prompted his transition from toleration to a burning zeal for expurgation. His arguments did not form a logical sequence, and were dead wrong in key particulars; but who can doubt the passion of his feelings?

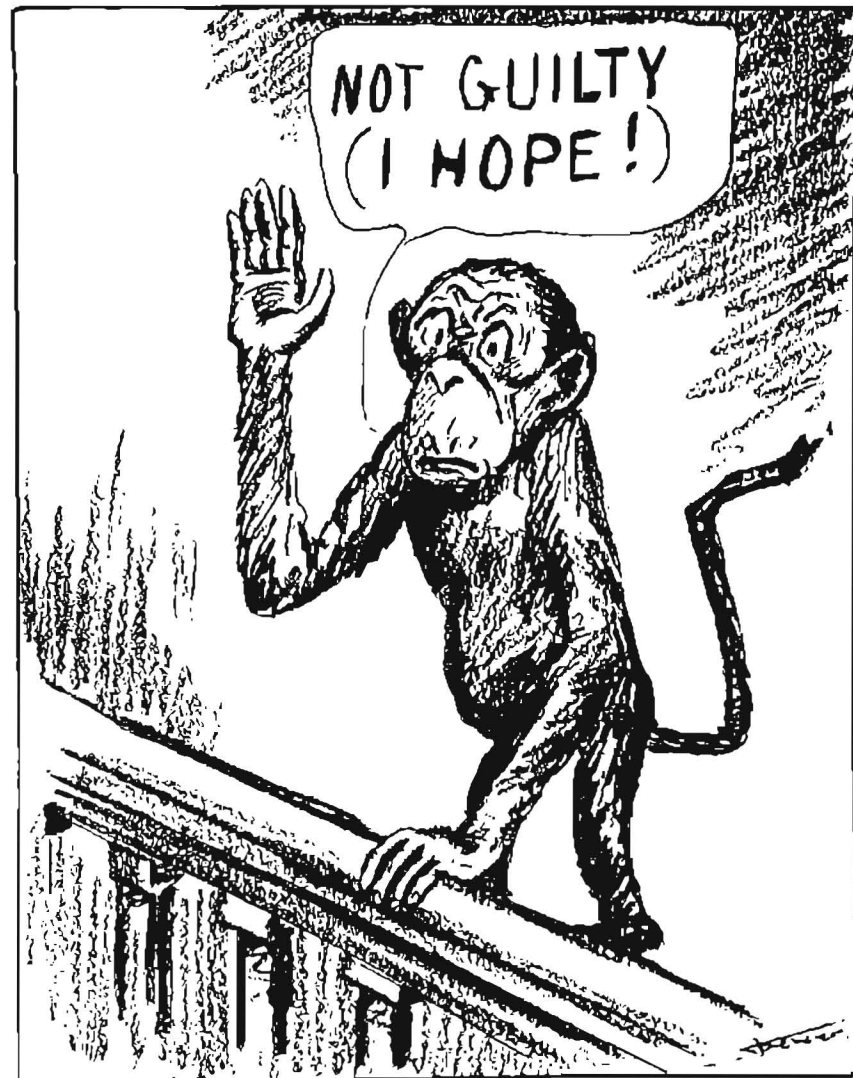
We must acknowledge, before explicating the reasons for Bryan's shift, that he was no intellectual. Please don't mis-

construe this statement. I am not trying to snipe from the depth of Harvard elitism, but to understand. Bryan's dearest friends said as much. Bryan used his first-rate mind in ways that are intensely puzzling to trained scholars—and we cannot grasp his reasons without mentioning this point. The "Prince of Peace" displays a profound ignorance in places, as when Bryan defended the idea of miracles by stating that we continually break the law of gravity: "Do we not suspend or overcome the law of gravitation every day? Every time we move a foot or lift a weight we temporarily overcome one of the most universal of natural laws and yet the world is not disturbed." (Since Bryan gave this address hundreds of times, I assume that people tried to explain to him the difference between laws and events or reminded him that without gravity, our raised foot would go off into space. I must conclude that he didn't care because the line had a certain rhetorical oomph.) He also explicitly defended the suppression of understanding in the service of moral good:

If you ask me if I understand everything in the Bible, I answer no, but if we will try to live up to what we do understand, we will be kept so busy doing good that we will not have time to worry about the passages which we do not understand

This attitude continually puzzled his friends and provided fodder for his enemies. One detractor wrote: "By much talking and little thinking his mentality ran dry." To the same effect, but with kindness, a friend and supporter wrote that Bryan was "almost unable to think in the sense in which you and I use that word. Vague ideas floated through his mind but did not unite to form any system or crystalize into a definite practical position."

Bryan's longstanding approach to evolution rested upon a threefold error. First, he made the common mistake of confusing the fact of evolution with the Darwinian explanation of its mechanism. He then misinterpreted natural selection as a martial theory of survival by



THE PLEA AT BAR

The Scopes trial as seen by Omaha World-Herald cartoonist Guy R. Spencer. Omaha World-Herald, July 11, 1925

battle and destruction of enemies. Finally, he made the logical error of arguing that Darwinism implied the moral virtuousness of such deathly struggle. He wrote in the *Prince of Peace* (1904):

The Darwinian theory represents man as reaching his present perfection by the operation of the law of hate—the merciless law by which the strong crowd out and kill off the weak. If this is the law of our development then, if there is any logic that can bind the human mind, we shall turn backward toward the beast in propor-

tion as we substitute the law of love. I prefer to believe that love rather than hatred is the law of development.

And to the sociologist E. A. Ross, he said in 1906 that "such a conception of man's origin would weaken the cause of democracy and strengthen class pride and the power of wealth." He persisted in this uneasiness until World War I, when two events galvanized him into frenzied action. First, he learned that

the martial view of Darwinism had been invoked by most German intellectuals and military leaders as a justification for war and future domination. Second, he feared the growth of skepticism at home, particularly as a source of possible moral weakness in the face of German militarism.

Bryan united his previous doubts with these new fears into a campaign against evolution in the classroom. We may question the quality of his argument, but we cannot deny that he rooted his own justifications in his lifelong zeal for progressive causes. In this crucial sense, his last hurrah does not nullify, but rather continues, all the applause that came before. Consider the three principal foci of his campaign, and their links to his populist past:

1. For peace and compassion against militarism and murder. "I learned," Bryan wrote, "that it was Darwinism that was the basis of that damnable doctrine that might makes right that had spread over Germany."

2. For fairness and justice toward farmers and workers and against exploitation for monopoly and profit. Darwinism, Bryan argued, had convinced so many entrepreneurs about the virtue of personal gain that government now had to protect the weak and poor from an explosion of anti-Christian moral decay: "In the United States," he wrote,

pure-food laws have become necessary to keep manufacturers from poisoning their customers; child labor laws have become necessary to keep employers from dwarfing the bodies, minds and souls of children; anti-trust laws have become necessary to keep overgrown corporations from strangling smaller competitors, and we are still in a death grapple with profiteers and gamblers in farm products.

3. For absolute rule of majority opinion against imposing elites. Christian belief still enjoyed widespread majority support in America, but college education was eroding a consensus that once insured compassion within democracy. Bryan cited studies showing that only 15 percent of college male freshmen harbored doubts about God, but that 40

percent of graduates had become skeptics. Darwinism, and its immoral principle of domination by a selfish elite, had fueled this skepticism. Bryan railed against this insidious undermining of morality by a minority of intellectuals, and he vowed to fight fire with fire. If they worked through the classroom, he would respond in kind and ban their doctrine from the public schools. The majority of Americans did not accept human evolution, and had a democratic right to proscribe its teaching.

Let me pass on this third point. Bryan's contention strikes at the heart of academic freedom, and I have often treated this subject in previous essays. Scientific questions cannot be decided by majority vote. I merely record that Bryan embedded his curious argument in his own concept of populism. "The taxpayers," he wrote,

have a right to say what shall be taught to direct or dismiss those whom they employ as teachers and school authorities. . . . The hand that writes the paycheck rules the school, and a teacher has no right to teach that which his employers object to.

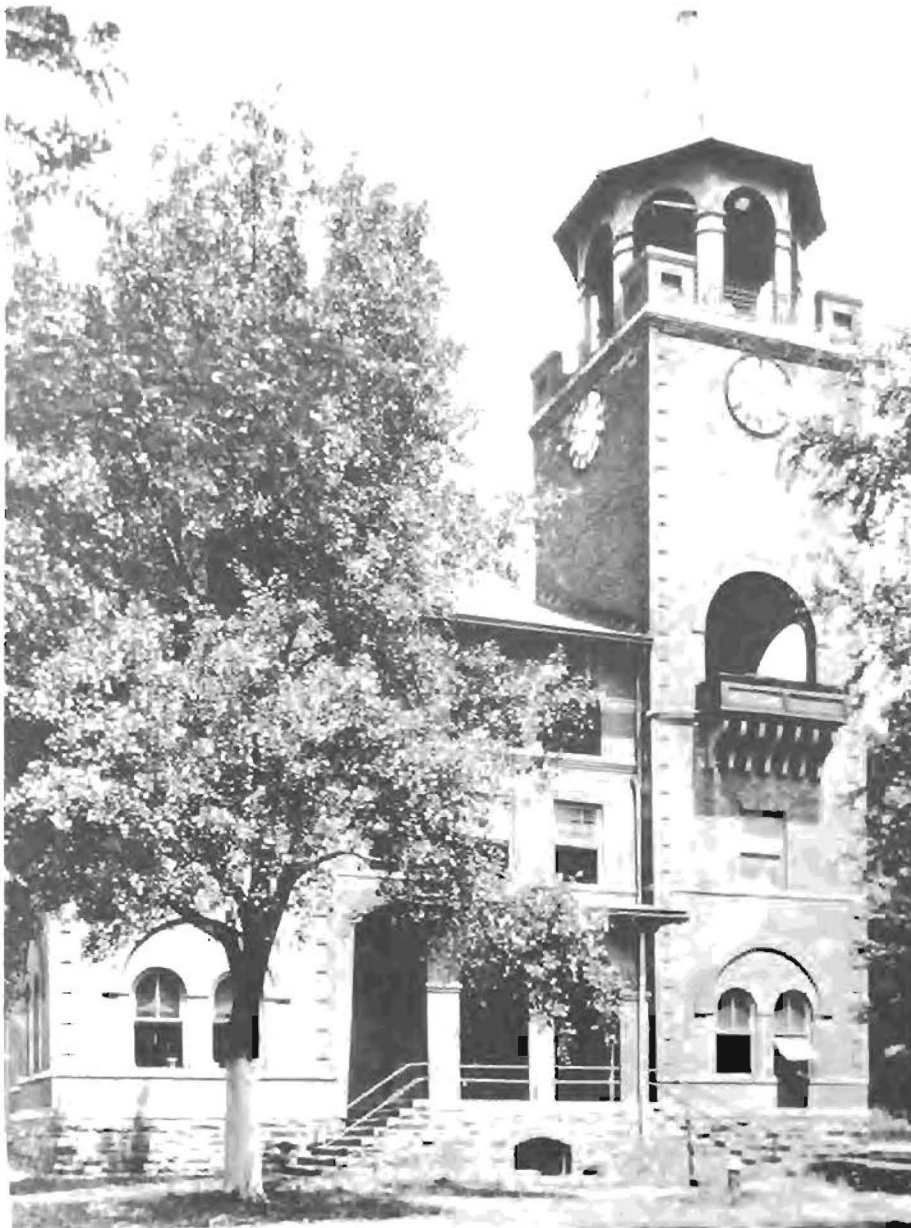
But what of Bryan's first two arguments about the influence of Darwinism on militarism and domestic exploitation? We detect the touch of the Philistine in Bryan's claims, but I think we must also admit that he located something deeply troubling and that the fault does lie partly with scientists and their acolytes.

Bryan often stated that two books had fueled his transition from laissez faire to vigorous action: *Headquarters Nights*, by Vernon L. Kellogg (1917), and *The Silence of Power*, by Benjamin Kidd (1918). I fault Harvard University for many things, but it has one great glory—its unparalleled resources. Half an hour after I needed these obscure books if I ever hoped to hold the key to Bryan's activities, I had extracted them from the depths of Widener Library. I found them every bit as riveting as Bryan had, and I came to understand his fears, even to agree in part (though not, of course, with his analysis or his remedies).

Vernon Kellogg was an entomologist and perhaps the leading teacher of evolution in America (he was a professor at Stanford and wrote a major textbook, *Evolution and Animal Life*, with his mentor and Darwin's leading disciple in America, David Starr Jordan, ichthyologist and president of Stanford University). During the First World War, while America maintained official neutrality, Kellogg became a high official in the international nonpartisan effort for Belgian relief, a cause officially "tolerated" by Germany. In this capacity, he was posted at the headquarters of the German Great General Staff, the only American on the premises. Night after night he listened to dinner discussions and arguments, sometimes in the presence of the Kaiser himself, among Germany's highest military officers. *Headquarters Nights* is Kellogg's account of these exchanges. He arrived in Europe as a pacifist, but left committed to the destruction of German militarism by force.

Kellogg was appalled, above all, at the justification for war and German supremacy advanced by these officers, many of whom had been university professors before the war. They not only proposed an evolutionary rationale but advocated a particularly crude form of natural selection, defined as inexorable, bloody battle:

Professor von Flussen is Neo-Darwinian, as are most German biologists and natural philosophers. The creed of the *Allmacht* ["all might" or omnipotence] of a natural selection based on violent and competitive struggle is the gospel of the German intellectuals; all else is illusion and anathema. . . . This struggle not only must go on for that is the natural law, but it should go on, so that this natural law may work out in its cruel, inevitable way the salvation of the human species. . . . That human group which is in the most advanced evolutionary stage . . . should win in the struggle for existence, and this struggle should occur precisely that the various types may be tested, and the best not only preserved, but put in position to impose its kind of social organization—its *Kultur*—on the others, or, alternatively, to destroy and replace them. This is the disheartening kind of argument that I faced at Headquarters. . . . Add the additional assumption that the



The trial was held in the Rhea County Courthouse. NSH5-B915-216

Germans are the chosen race, and that German social and political organization the chosen type of human community life, and you have a wall of logic and conviction that you can break your head against but can never shatter—by headwork. You long for the muscles of Samson.

Kellogg, of course, found in this argument only "horrible academic casuistry and . . . conviction that the individual

is nothing, the state everything." Bryan conflated a perverse interpretation with the thing itself and affirmed his worst fears about the polluting power of evolution.

Benjamin Kidd was an English commentator highly respected in both academic and lay circles. His book *Social Evolution* (1894) was translated into a

dozen languages and as widely read as anything ever published on the implications of evolution. In *The Science of Power* (1918), his posthumous work, Kidd constructs a curious argument that, in a very different way from Kellogg's, also fueled Bryan's dread. Kidd was a philosophical idealist who believed that life must move toward progress by rejecting material struggle and individual benefit. Like the German militarists, but to excoriate rather than to praise, Kidd identified Darwinism with these impediments to progress. In a chapter entitled "The Great Pagan Retrogression," Kidd presented a summary of his entire thesis:

1. Darwin's doctrine of force re-kindled the most dangerous of human tendencies—our pagan soul, previously (but imperfectly) suppressed for centuries by Christianity and its doctrines of love and renunciation:

The hold which the theories of the *Origin of Species* obtained on the popular mind in the West is one of the most remarkable incidents in the history of human thought . . . Everywhere throughout civilization an almost inconceivable influence was given to the doctrine of force as the basis of legal authority. . . .

For centuries the Western pagan had struggled with the ideals of a religion of subordination and renunciation coming to him from the past. For centuries he had been bored almost beyond endurance with ideals of the world presented to him by the Churches of Christendom. . . . But here was a conception of life which stirred to its depths the inheritance in him from past epochs of time. . . . This was the world which the masters of force comprehended. The pagan heart of the West sang within itself again in atavistic joy.

2. In England and America, Darwinism's worst influence lay in its justification for industrial exploitation as an expression of natural selection ("social Darwinism" in its pure form):

The prevailing social system, born as it had been in struggle, and resting as it did in the last resort on war and on the toil of an excluded proletariat, appeared to have become clothed with a new and final kind of authority.

3. In Germany Darwin's doctrine became a justification for war:

Darwin's theories came to be openly set out in political and military textbooks as the full justification for war and highly organized schemes of national policy in which the doctrine of force became the doctrine of Right.

4. Civilization can only advance by integration: the essence of Darwinism is division by force for individual advantage. Social progress demands the "subordination of the individual to the universal" via "the iron ethic of Renunciation."

5. Civilization can only be victorious by suppressing our pagan soul and its Darwinian justification:

It is the psychic and spiritual forces governing the social integration in which the individual is being subordinated to the universal which have become the winning forces in evolution.

This characterization of evolution has been asserted in many contexts for nearly 150 years—by German militarists, by Kidd, by hosts of the vicious and the duped, the self-serving and the well-meaning. But it remains deeply and appallingly wrong for three basic reasons.

1. Evolution means only that all organizations are united by ties of genealogical descent. This definition says nothing about the mechanism of evolutionary change: in principle, externally directed upward striving might work as well as the caricatured straw man of bloody Darwinian battle to the death. The objections, then, are to Darwin's theory of natural selection, not to evolution itself.

2. Darwin's theory of natural selection is an abstract argument about a metaphorical "struggle" to leave more offspring in subsequent generations, not a statement about murder and mayhem. Direct elimination of competitors is one pathway to Darwinian advantage, but another might be cooperation through social ties within a species or by symbiosis between species. For every act of killing and division, natural selection can also favor cooperation and integration in other circumstances. Nineteenth-century interpreters did generally favor a martial view of selection, but for every militarist, there was a Prince Kropotkin, urging that the "real" Darwinism be rec-

ognized as a doctrine of integration and "mutual aid."

3. Whatever Darwinism represents on the playing fields of nature (and by representing both murder and cooperation at different times, it upholds neither as nature's principal way), Darwinism implies nothing about moral conduct. We do not find our moral values in the actions of nature. One might argue, as Thomas Henry Huxley did in his famous essay "Evolution and Ethics," that Darwinism is primarily a law of battle, and that human morality must be defined as the discovery of an opposite path. Or one might argue, as grandson Julian did, that Darwinism is a law of cooperation and that moral conduct should follow nature. I can only conclude that Darwinism offers no moral guidance.

But Bryan made this common three-fold error and continually characterized evolution as a doctrine of battle and destruction of the weak, a dogma that undermined any decent morality and deserved banishment from the classroom. In a rhetorical flourish near the end of his "Last Evolution Argument," the final speech that he prepared with great energy, but never had the opportunity to present at the Scopes trial, Bryan proclaimed:

Again force and love meet face to face, and the question "What shall I do with Jesus?" must be answered. A bloody, brutal doctrine—Evolution—demands, as the rabble did nineteen hundred years ago, that He be crucified.

I wish I could stop here with a snide comment on Bryan as Yahoo and a ringing defense for science's proper interpretation of Darwinism. But I cannot, for Bryan was right in one crucial way. Lord only knows he understood precious little about science, and he wins no medals for logic of argument. But when he said that Darwinism had been widely portrayed as a defense of war, domination, and domestic exploitation, he was right. Scientists would not be to blame for this if we had always maintained proper caution in interpretation and proper humility in resisting the exten-

sion of our findings into inappropriate domains. But many of these insidious and harmful misinterpretations had been promoted by scientists. Several of the German generals who traded arguments with Kellogg had been university professors of biology.

Just one example from a striking source. In his "Last Evolution Argument," Bryan charged that evolutionists had misused science to present moral opinions about the social order as though they represented facts of nature

By paralyzing the hope of reform, it discourages those who labor for the improvement of man's condition . . . His only program for man is scientific breeding, a system under which a few supposedly superior intellects, self-appointed, would direct the mating and the movements of the mass of mankind—an impossible system!

Bryan was quite correct here. One of the saddest chapters in all the history of science involves the extensive misuse of data to support biological determinism, the claim that social inequalities based on race, sex, or class cannot be altered because they reflect the innate and inferior genetic endowments of the disadvantaged (see my book, *The Mismeasure of Man*). It is bad enough when scientists misidentify their own social preferences as facts of nature in their technical writings. It is especially unfortunate when writers of textbooks, particularly for elementary and high school students, promulgate these (or any) social doctrines as the objective findings of science.

Two years ago I obtained a copy of the book that John Scopes used to teach evolution to the children of Dayton, Tennessee—*A Civic Biology*, by George William Hunter (New York: American Book Company, 1914). Many writers have looked into this book to read the section on evolution that Scopes taught and Bryan quoted. But I found something disturbing in another chapter that has eluded previous commentators—an egregious claim that science holds the moral answer to questions about mental retardation, or social poverty so misinterpreted. Hunter



John T. Scopes being arraigned. Bryan can be seen just above Scopes's left shoulder. Courtesy Bryan College, Dayton, Tennessee

discusses the infamous Jukes and Kallikaks, the "classic," and false, cases once offered as canonical examples of how bad heredity runs in families. Under the heading "Parasitism and Its Cost to Society—the Remedy," he writes:

Hundreds of families such as those described above exist today, spreading disease, immorality and crime to all parts of this country. The cost to society of such families is very severe. Just as certain animals or plants become parasitic on other plants or animals, these families have become parasitic on society. They not only do harm to others by corrupting, stealing or spreading disease, but they are actually protected and cared for by the state out of public money. Largely for them the poorhouse and the asylum exist. They take from society, but they give nothing in return. They are true parasites.

If such people were lower animals, we would probably kill them off to prevent them from spreading. Humanity will not allow this, but we do have the remedy of separating the sexes in asylums or other places and in various ways preventing intermarriage and the possibilities of perpetuating such a low and degenerate race.

Bryan had the wrong solution, but he had correctly identified a problem!

Science is a discipline, and disciplines are exacting. All maintain rules of conduct and self-policing. All gain strength, respect, and acceptance by working honorably within their bounds and knowing when transgression upon other realms counts as hubris or folly. Science is a discipline dedicated to learning about the factual state of nature and trying to explain and coordinate these data into general theories. Science teaches us many wonderful and disturbing things—facts that need weighing when we try to develop standards of conduct and ponder the great questions of morals and aesthetics. But science cannot answer these questions alone and cannot dictate social policy.

Scientists have power by virtue of the respect commanded by the discipline. We may therefore be sorely tempted to misuse that power in furthering a personal prejudice or social goal—why not provide that extra oomph by extending the umbrella of science over a personal

preference in ethics or politics? But we cannot, lest we lose the very respect that tempted us in the first place.

If this plea sounds like the conservative and pessimistic retrenching of a man on the verge of middle age, I reply that I advocate this care and restraint in order to demonstrate the enormous power of science. We live with poets and politicians, preachers and philosophers. All have their ways of knowing, and all are valid in their proper domains. The world is too complex and interesting for one way to have all the answers. Besides, highfalutin morality aside, if we continue to overextend the boundaries of science, folks like Bryan will nail us properly for their own insidious purposes.

We should give the last word to Vernon Kellogg, the great teacher who understood the principle of strength in limits, and who listened with horror to the ugliest misuses of Darwinism. Kellogg properly taught in his textbook (with David Starr Jordan) that Darwinism cannot provide moral answers:

Some men who call themselves pessimists because they cannot read good into the operations of nature forget that they cannot read evil. In morals the law of competition no more justifies personal, official, or national selfishness or brutality than the law of gravitation justifies the shooting of a bird.

Kellogg also possessed the cardinal trait lacked both by Bryan and by many of his evolutionary adversaries: humility in the face of our profound ignorance about nature's ways, combined with that greatest of all scientific privileges, the joy of the struggle to know. In his greatest book *Darwinism Today* (1907), Kellogg wrote:

We are ignorant, terribly, immensely ignorant. And our work is, to learn. To observe, to experiment, to tabulate, to induce, to deduce. Biology was never a clearer or more inviting field for fascinating, joyful, hopeful work.

Amen, brother!