

Curriculum in Conflict

The Scopes Trial

Reason vs. Religion

An Historical Turning Point in Public Control of Education in  
America

Michael W. Popejoy, Ph.D.

## Abstract

This paper provides historical evidence supporting Peter F. Oliva's Second Axiom: *A school curriculum not only reflects but is a product of its time.* The Scopes Trial became the focal point of conflict, in more than just a legal sense, between science and religion, and in a larger, more ideological sense, between Hamiltonianism and Jeffersonianism. The trial would help determine, for a time anyway, which world-view would predominate as the legitimate foundation in the curriculum of public education. Who would control the curriculum; the "experts" who represent the state (the government) or those, the majoritarian community, who pay for the schools? On an even deeper level, traditional family values were being challenged by the modernist, progressive, analytical values of science that informed a strengthening central government populated by experts at both the federal and state level (a Hamiltonian worldview). With its scientific method, science began to whittle away at long held principles based on faith and the agrarian values of the South (Jeffersonian philosophy). But, science changes—its paradigms shift, science plants its foundation in sandy soil—the bedrock of faith does not change much for the faithful. The Bible may be open to various interpretations to accommodate the times, but it is not rewritten as new evidence is discovered. Science revises, reinvents itself so often it does not do much good to place too much confidence in science books without a close look at the copyright dates. Some have come to grips with the science and religion debate, and have found both together to

be powerful allies; others camp on one side or the other—clearly Christians and atheists populate the polar opposite influences on the curriculum of public education, and the description of public can imply majoritarian control or control by the elites. Many scientists are neither Christians nor atheists—that’s just one of the complications. The Scopes Trial was a set-up. The ACLU was looking for a test case to clearly establish a legal boundary between church and state in public education; clearly a Hamiltonian perspective. Essentially, its mission was to wrest education from the grips of those who would base the curriculum on foundations of religious tradition, family values based on that tradition, faith, and agrarian tradition (a Jeffersonian worldview), and place it in the hands of those elites whose view of truth rests on what can be seen and empirically proven. From the standpoint of public policy models, the Scopes Trial was the first effort to place the issue within the judicial framework of the public policy agenda setting process model. Scopes was the dramatizing event that brought the growing dissatisfaction to national attention, and helped to strengthen the power of the state over the power of the individual.

## The Scopes Trial: Religion vs. Reason

## Introduction

The Scopes Trial, also more popularly known as the Monkey Trial, brought the conflict between religion and science to national attention; but, from a deeper ideological perspective it was part of a continuing struggle in American political ideology between Hamiltonianism and Jeffersonianism. Prior to this, the debate had been primarily a scholarly one; indeed, the debate had been waged decades before in the universities. It also probably did more for the career of Clarence Darrow and lasting fame of William Jennings Bryan (posthumously) than for any specific curriculum reforms of the times. But, the debate centered on the important issue of what could or could not be taught in public schools and ultimately who would control the public school curriculum; the people (in the Jeffersonian tradition) or the elite few who claimed an expert status over education (in the Hamiltonian tradition). Despite the verdict in favor of the anti-evolutionists (now called pro-creationists), science was unyieldingly locked-in to the curriculum of the future in public education, as it solidified the influence of the education experts.

In 1993, Peter F. Oliva (Developing the Curriculum, 1997) identified ten axioms or principles of curriculum theory. His second axiom related curriculum as a product of its time, "*a school curriculum not only reflects but is a product of its time*" (p. 29). Although today curriculum changes are more rapid due to advanced technology and communications, it nevertheless

seems true that curriculum responds to contemporary events. Oliva further states, "Clearly, the curriculum responds to and is changed by social forces, philosophical positions, psychological principles, accumulating knowledge, and educational leadership at its moment in history. Changes in society clearly influence curriculum development..." (p. 29).

This paper presents modest confirming historical evidence supporting Oliva's second axiom, and juxtaposes this with the ideological and political frameworks of Jeffersonian and Hamiltonian traditions and political thought. The philosophical positions are opposing traditional rural agrarian community life (Jeffersonianism) (Kennedy, 2000) against a modern urban city (state) life where experts dominated (Hamiltonianism) (Chernow, 2004).

The Scopes Trial took place in the summer of 1925 in Dayton, Tennessee—a little market town lodged in a valley off the Walden Ridge on the Cumberland Plateau. But, the forces leading up to that relatively singular event were decades in the making and were monumental in their impact. This trial became the public forum in which the debate between religion and science would get its first public test; as well the trial would be expected to demonstrate who was accountable for the curriculum: what is taught and the content of textbooks; the beliefs of a culture of tradition or the empiricism of a culture of science.

Oliva identified and linked the philosophical movement of Progressivism and the expanded role of the high school (also in

Larson, 1997; Schubert, 1986) in American society of the day. He also identified a change from the more traditional values of the times to a more "mechanized society" of modernity, (Olivia, 1997, p.31; Pursell, 1995).

This shift from traditional values based on faith in Judeo-Christian fundamentalism to a scientific society based on reason became the flash-point for the debate on who would control the minds of students. The events leading up to and following the Scopes Trial supports the confirmation of Oliva's second axiom as a curriculum principle. It also confirms that Hamilton's and Jefferson's fundamental ideologies were still being debated even into the 20<sup>th</sup> century.

## Education in the Southern Tradition

The South is a unique region of the country with traditions that contributed to the conflicts between that "old time religion" and the new science. This trial was more than Darrow against Bryan, even more than science against religion, it was also about country hicks against city sophisticates; rural and agrarian life against the encroachment of the urbanized, machine society; indeed Hamilton against Jefferson.

John Gould Fletcher, in his essay, *Education, Past and Present*, stated, "The objective of education was to produce good men" (in Rock, 1930). The South lives under the social organization of the clan, the family, the city-state, and the religious brotherhood; all tied to the soil in an agrarian culture. It is a band of individuals held together by certain practices that it assumes will be of mutual benefit to its members. This backdrop to the south was well illustrated by William J. Cooper, Jr. in his book, Jefferson Davis, American (2000).

As early as 1845, Tennessee and Alabama adopted state controlled systems of free public education. This system survived the Civil War to become the model for Southern education; although the urban, machine-driven industry of the North created a curriculum that was not well suited to the Southern tradition. A growing nation was stretching its arms wide to embrace social issues and bring them within the control of the government—the beginning of the administrative state populated by experts in every field, including education (White,

1950).

Gould opined, "The system of high-school instruction that spread from the North to the South was a disaster of the first magnitude" (p. 118). He was correct in that it was not adapted to Southern life which was predominately rural and agricultural. Southern education should produce Southern gentlemen. The curriculum goals of the North were specifically directed to train men for industry, as Hamilton had called for, rather than for harmonious living, and self-aggrandizement, rather than peace with God.

Frank Lawrence Owsley wrote, "Much of the struggle is between an agrarian and industrial civilization...an irrepressible conflict" (in Rock, 1930, p. 91). The South held for states' rights above Federal power—that meant that the states could control their curriculum content, including selection of textbooks, and what could and could not be taught in their public schools.

Further adding to the evidence that the South was somehow different is John Crowe Ransom, "The agrarian discontent in America is deeply grounded in the love of the tiller of the soil...industrialism sets itself against the most ancient and the most humane of all the modes of human livelihood" (in Rock, 1930, p. 18). Hamilton's ideology was clearly rejected by the South—this then contributed to a Civil War for reasons far beyond the slavery question. Indeed, Robert Fogel's Nobel Prize winning cliometric research on slavery as an economic institution in the South demonstrated clearly that the rise of

the industrial revolution would have doomed slavery without the intervention of a civil war. How certain this conclusion is historically is a matter of debate. But, Hamilton clearly preferred the slave as a freeman trained to work in industry where labor shortages were common (Randall, 2003). Jefferson, a slave owner, would likely never have agreed.

This rural, agrarian sectarian culture was also deeply religious firmly in the fundamentalist camp. This religious fervor became particularly acute after the Civil War. The South had lost the Cause, and its culture, its very identity was in question. Southerners sought their salvation and redemption in the evangelistic, fundamentalist churches—particularly Baptist (Hall and Wood, 1995; Ezell, 1975).

W. J. Cash, in his book, The Mind of the South, (in Hall and Wood, 1995) wrote, "the sole institution left to the South was that of the evangelical church—the last link holding the South together in the decades following the (Civil) War" (p.216). The outreach of the Southern Baptists was and still is enormous throughout the whole Southern region of the United States.

The religious inclination of the people, plus the conservative, agrarian orthodoxy made the South one of the most devout sections of Christendom with a more homogeneous religious quality than any other region in the United States (Ezell, 1975, p. 348). This rigid theology, emotionalism, and the emphasis on individual salvation helped divert attention from the ills of post-war society; further, religion was used to justify social

segregation.

Another Southern cultural tradition that should not be ignored is the "Savage Ideal" which was (and is today) the dogged resistance to change of any stripe, plus the sanguine determination to fight all changes to the existing order (from W. J. Cash, The Mind of the South, 1941). The fundamentalists had long chafed at the heresy of Darwin. It was a social evil that threatened their doctrinal answers to life. The "Savage Ideal" and the Southern social and political culture would fight to maintain their status quo. The education of future generations of Southern gentlemen was at stake.

#### William Jennings Bryan—"The Great Commoner"

Bryan led the crusade to exclude Darwinian science from the public schools. He was an activist on this issue long before the Scopes Trial brought him to Dayton. But, Bryan's defeat in Dayton and his death four days later brought the decline of organized resistance to evolution. The high-flying standards of parochialism were lowered as most Southerners subsequently accepted sophistication—and modern science, and without really knowing it, the Hamiltonian world view which exists to this day, at least in the urban South.

Bryan supported the Butler Bill (1925) in the Tennessee legislature that established the law banning the teaching of Darwinian Theory in Tennessee public schools. This was the law that John T. Scopes had violated. Fundamentalists turned on tax supported education, as illiterates and the semi-educated put

pressure on their legislators (at the instigation of their pastors) to outlaw the teaching of evolution or face the loss of the powerful rural vote (Ezell, 1975). The legislature was more than happy to pass the bill by an overwhelming majority.

Here begins the argument regarding the rights of the state to direct the content of the curriculum based on the political implications of majority rule democracy. The BIG QUESTION: Do the taxpayers have the right to determine the curriculum content, or should it be left in the hands of an elite group of professional educators specifically trained in the process of the administration of education including developing the content of the curriculum (Schubert, 1986)? This was an issue in 1925 and remains one today especially as we tackle new problems of academic freedom and tenure in universities.

F. A. Hayek writes, "The next task is to set up a new intellectual government where only the competent scientists will be allowed to decide the difficult social questions" (p. 353). Social organizations from positivistic science—not majoritarian democracy should rule. Walter Lippmann would have agreed with Hayek; and, like Hamilton, he was suspicious of majoritarian democracy since both Hayek and Lippmann reflect Kantian and other philosophers that the apathetic mass of the population are unable to discern wisdom since they are not well educated, well read or informed sufficiently to vote intelligently, and as Hamilton would have added, the uninformed masses are vulnerable to the passions of demagoguery. Lippmann called for a new system of government entirely (Steel, 1980). He urged liberals to

accept once and for all the limitations of democracy, something Hamilton had called for all along, and Jefferson would have been violently opposed.

Lippmann asked, "Does the legislature have the power to declare what and how people shall learn" (Steel, 1980, p. 217). Lippmann believed that the people of Tennessee had wrongly used their power to prevent their own children from learning; "Guidance for the school system could come only from educators" (p. 218).

William Jennings Bryan set himself against this stream of thought. He held two principles to be most fundamental in his world-view: (1) the power of majoritarian democracy as an absolute and (2) the absolute inerrancy of the Bible as the literal word of God. Further, he believed faithfully and optimistically in the people and that they (only the Christian majority) should rule without qualification as to how or what they should rule.

Bryan and fundamentalism drew lines against modernism itself rather than just science. Modernism was heresy. Fundamentalist were opposed and answered the call to arms to defeat the movement of modernist thinking both in the churches and in the schools, thus in society and the culture of the South. Reform took two forms with Bryan: (1) personal reform through individual religious faith and (2) public reform through majoritarian democratic governmental action in its purest form (Larson, 1997). Bryan was a classic Jeffersonian in virtually every respect—even temperament.

Bryan came to Dayton to defend the power of local majorities to enact a law—his law—to ban the teaching about human evolution in public schools. Clarence Darrow came to debunk fundamentalist reliance on scripture as a source of knowledge about nature suitable for setting educational standards. Darrow stated, "We have the purpose of preventing bigots and ignoramuses from controlling the education of the U.S." (Larson, 1997, p.6). Hamilton would have agreed on this point.

Richard Hofstadter (Anti-Intellectualism in American Life, 1962, p. 127) quotes Bryan, "If they believe evolution, they go back to scoff at the religion of their parents; and the parents have a right to say that no teacher paid by their money shall rob their children of faith in God and send them back to their homes, skeptical, infidels, or agnostics, or atheists—our purpose and our only purpose is to vindicate the right of parents to guard the religion of their children."

Bryan was a layman who combined in his person the two basic ancestral pieties of the people—evangelical faith and populist democracy (Hofstadter, 1962). In his mind, faith and democracy converged in a common anti-intellectualist rationale. Where there appeared to be a conflict between religion and science, it was the public, Bryan believed, and not "those who measure men by diplomas and college degrees" who should decide" (p. 128). This clearly reflects the Jeffersonian ideology of Bryan.

This anti-intellectualism and anti-elitism has its roots in the populist movement which was primarily rural and agrarian.

Populism was a movement to withstand the destructive and degenerative effects of modern, industrial society on the family, nation, race, and culture (Carto, 1982). Populism was a force for stability, creating a tranquil society in which individual and cultural growth can occur without the progress being threatened or exploited by alien cultures promoting cultural distortions. This fit well with the Southern culture of Christian gentlemen living well in rural, agrarian community.

Bryan epitomized populist beliefs. He was raised in populism and espoused the rights of citizens in majority democracy and the beliefs of his religion. He saw populism as an authentic political heritage and as the only social, economic, and political system worthy of adoption. Bryan fought monopoly capitalism and economic royalism and the encroachment of science even as he participated in both. He was both a land speculator in Florida and a member of the American Association for the Advancement of Science. Bryan was a living, breathing example of undisciplined intellectual paradox—and, the rural people loved him. But, then interestingly enough, so was Jefferson, who espoused one ideology of the people in his writings and then practiced an entirely different one, acting very much as an elitist, when he was in power as President (Kennedy, 2000).

Further, Bryan believed in the rights of parents to prevent certain teachings; "They (the elites) have no right to demand pay for teaching that which the parents and the taxpayers do not want taught. The hand that writes the paycheck rules the school"(p. 129), not the experts trained and qualified to do so.

William Jennings Bryan fought a losing battle to hold the line against an encroaching secular modernist world that invaded his tradition-laden populism. His "old time religion" could not keep pace with the discoveries of science that continually refuted biblical references as to how nature worked. His followers were guided by emotionalism and his detractors were guided by reason. Once on the witness stand, Clarence Darrow finished him.

Bryan took the stand as an expert witness on both religion and science, yet he was an undisciplined layman in both. Neither his knowledge of science nor his knowledge of the scriptures was adequate to the task of expert. Darrow began to critically discredit his "opinions" and made him look like the "bigot and ignoramus" that Darrow was there to defend Scopes against. Although the case for the defendant was lost, the case for religion was lost even more.

According to Ezell (1975), "to those who took their religion lightly, the reaction was that God may not have made man out of a monkey, but that Darrow did make a monkey out of Bryan" (p. 352). Four days after his disastrous testimony, Bryan died.

## The Progressive Era: Science and Religion Collide

"How has the process of science and religion interacted to help shape American culture—what has the impact of this relationship been on the public school curriculum?" (Gilbert, 1997, p.3). How does religion sustain itself at the center of American culture in a largely secular society? Part of the answer is implicit in the dialectical interaction between science and religion throughout the 20<sup>th</sup> century. How has religion and science engaged each other as elements of American culture—not just theories and theologies but also as everyday ideas?

The age of scientific dominion began in the late nineteenth century, during the Progressive Era. In the developing revolution of organization and order, science in its various guises seemed a potent social model for reforming society (Kanigel, 1997). Scientific method, the ethics and practices of the scientific community, the organization of laboratories, and scientific societies, the scientific version of truth telling, all appeared to offer the best chance, as many Americans believed, for governing the racing engine of technology and braking the excessive speed of industrial change (Pursell, 1995).

How could religion retrieve the soul of America if its mind was enthralled by science? If science offered a model of

organization and procedures that produced real results and visible change (Kanigel, 1997); then religion either had to accept this secular movement, offering an editorial suggestion here and there, or dig in its heels and resist; which is what it did at the Scopes Trial. How could society return to the emotional comforts of a Jeffersonian worldview? The normative question remains today is should they?

The increasing complexity of modern science widened the wedge between the scientists and the theologians. Science is hard to understand which confers enormous prestige and power on scientists which also renders them susceptible to suspicion, mistrust, and misunderstanding, especially in a democratic society (Cohen, 1995; Gilbert, 1997).

Early in the modern time of science, it appeared that science was largely consistent with biblical creation and scientists found no need to challenge religion (Cohen, 1995; Gilbert, 1997; Newman, 1852; Solomon and Higgins, 1996; and Armstrong, 1993). Later, after Darwin, science began to directly contradict the biblical story of creation. Implicit in Darwin's construction was a devastating implication that denied the first principle of Victorian religion. For Christians, human beings are the special wards of creation, the centerpiece of the universe, and the objects of God's perfect attention.

This assumption gives meaning to soul and salvation. The Darwinian struggle for survival contradicted prior interpretations of the existence of life. Now it was mere

survival and reproduction. Man was now suddenly very alone, and on his own. This upset Bryan and his followers greatly since they viewed God as love and redemption with the promise of everlasting life. To have this belief stripped away was a major emotional trauma.

If humans were not the center of the universe, then they had, in their hubris, constructed a complex mythology to testify to the ransom of nature and ward off the night of self-doubt (Armstrong, 1993). Neither science nor religion has had a stable and permanent definition in American culture. They continually shift in meaning and in their relation to each other. These tectonic plates create violent conflict as they rub together. The curriculum of the public school is often ground zero for these reactions.

The distinctive element was the difficulty of doing science and the elitism of its practitioners. Science was not open to amateurs and was not always verifiable in an open democratic community—because most people simply could not understand the science of natural phenomena. This argument was echoed by Lippmann. However, religion was open to everyone, not just the supposed “thinkers” as Bryan had said (Hofstadter, 1962).

As a model for social reform and reorganization, science had once promised the verification of experiment and hypothesis through the approval of the democratic community. But this pragmatic ideal, on which John Dewey erected a host of reforms, faced the reality of a new science that could be understood only by a narrow circle of other scientists, who constituted its

community of verification. The journal articles written by scientists mostly could only be read and comprehended by other scientists. This fact alone began to define an elite minority who would and could control the system.

And, according to I. Bernard Cohen in his book Science and the Founding Fathers (1995), science was much more than just a hobby to the elite men of letters who led the new republic including Thomas Jefferson, Benjamin Franklin (for more than a century, he was the only American named to membership in both the Royal Society of London and the Paris Academie Royale des Sciences), John Adams and James Madison, and others.

In 1943, Robert K. Merton (Popejoy, 1994) in his research on the sociology of science argued that science itself did not simply investigate natural phenomena and develop descriptive hypotheses. Like other forms of human knowledge, it too depended on paradigms of theory and on changing historical circumstances (as predicted by Oliva (1993)—so goes the curriculum).

Science appealed to experience and generated hypotheses rooted in the natural world, but it postponed truth with a series of proximate descriptions. Religion also evoked experience, but as illustrating what was already known through faith or experience that led to faith. Science moved and evolved, whereas religion changed primarily in order to restore and revive ancient truths.

Religion is a system of knowing and responding to what it defines as unknowable and unapproachable. It constructs a historical narrative in which human beings are the central and

principle purpose. To put it simply—religion is anthropocentric and science is naturalistic (Gilbert, 1997); religion is deductive and physical science is inductive (Newman, 1852).

Secularization has proceeded rapidly in the twentieth century. The logic of the mechanical now pervades the economic world, and the hand of the market mechanism has visibly penetrated and transformed social and cultural institutions as Hamilton predicted. Science, along with its technological applications, defines the future (Pursell, 1995; Carter, 1993, 1998; Willis and Primack, 1989). Constructing an ideal typology raises serious and important problems of deciding what point to divide secular from religious groups (Gilbert, 1997, p.14).

Like religion, the meaning of natural science and scientific endeavor in modern America has also undergone rapid evolution—and science is what science does best. It offers explanations of natural phenomena capable of verification within a materialistic framework. By definition, it defies the intervention of deity in any explanation (Newman, 1852).

Social science has intruded more than any other branch of science into the realm once held by religion. Social science has secularized much of the sort of learning and common wisdom that earlier American society reserved for religious explanation.

Both religion and science depend on public acceptance to retain its expression in American life. Both require diffusion in cultural and institutional practices. There exists cultural space for religion in an otherwise scientific world. American culture dwells in paradox, tolerating and even encouraging the

coexistence of two very different and potentially hostile systems of explanation. Hamiltonianism defines the operation of state systems of administration, but does so clearly within the constraints of a Jeffersonian ideology of democracy and justice. Hamilton sought efficiency within a modified representative democracy, not totalitarianism by either a political demagogue or a religious one—which may be why America has never sent a pastor or a priest to the White House.

American religion watches every advance of science and assesses its impact. This behavior exhibits the essential cultural strategy of religious people: their refusal to accept marginalization. The refusal to accept a peripheral orbit helps account for the aggressive resilience of American religion.

As Gilbert writes, "For this is the way American culture is created: not by isolated subcultures operating according to their own rules in self-styled obscurity, but by groups and individuals reacting to questions...that they produce cultural products that sometimes look, sound, and feel different is no argument against the role of the same central imperative: to find the ideal relation between science and religion in a society of immense flux (p. 20).

## The Conflict in Dayton

Although it is not the thesis here to recreate the drama that was the Scopes Trial, it is fundamental to understanding the conflict to examine the "clash of titans" in Dayton. To some extent, it was Clarence Darrow against William Jennings Bryan; to a larger concept, it was modernism against populism with populism winning the battle of the day, but modernism ultimately winning the war—at least for the time until we entered the postmodernist era. It was also a battle for control of the curriculum which was recognized as control for the minds of future generations. Indeed, it was an essential battle between Hamiltonian and Jeffersonian world views.

It is important to understand, as well, that the trial was a set-up by the representatives of modernism. John Scopes did not actually teach evolution, he merely agreed to say that he would. The American Civil Liberties Union (ACLU) was looking for a test case to stem the tide of anti-evolution laws that were cropping up throughout the South. The trial had to be in the heart of the "bible-belt" namely the rural South. Dayton fit the bill nicely.

According to the public policy agenda setting process model described by both Dennis J. Palumbo (1994) and Mark E. Rushefsky (1996), a dramatizing event must be created by purpose or by accident to galvanize the political will of the apathetic masses to act in their legislative or judicial capacity. This is exactly what Hamilton feared about a pure open democracy. He believed that stirring the passions of the people could be

dangerous to the union.

The Tennessee legislature had enacted the Butler Bill in 1925, now the ACLU challenged that law through their judicial capacity. The end result would be the impact on the subject-content of the public school curriculum.

An interesting side note is that Tennessee was a text book adoption state and the text that Scopes was using was a state adopted book. Didn't the state officials review the book before adoption—or did they simply not understand what was in the book? The book in question was George William Hunter's A Civic Biology which summarized Darwin's alternative evolutionary mechanism in just one section of the text. The book was adopted by the state of Tennessee for their public high schools more than a decade before the Scopes Trial. So, each teacher had the option to teach that section, just mention the alternative view, or skip over it completely.

It may be noted also that Hunter worked on his text as a teacher at New York's De Witt Clinton High School and consulted with the faculty of the Teachers College at Columbia University. The Columbia University faculty included many leading educators of the time and America's foremost geneticist, Thomas Hunt Morgan. One of Hunter's closest friends was then earning a doctorate under Morgan at Columbia. It was in this way, Darwin found his way into Hunter's textbook and diffused into the minds of students in Dayton, Tennessee.

What made the issue suddenly so important that it became an international spectacle? Two streams of events moved toward each

other in an unavoidable collision course. During the years leading up to the Scopes Trial, an outpouring of academic books, articles, and essays discussing the conflict between science and religion with Darwinian Theory being the focal point at the same time that Hunter's text was being used in the school system.

The other stream of the event was the rapid increase of students attending high school and being exposed to evolution theory. Darwinianism was not a fighting matter until it began to influence their children's education in the 1920's. Christian biologists could no longer step in as they had earlier to soften evolution's impact on religious belief.

At the same time the high school curriculum became more Darwinian, there were more kids that went to high school. A critical mass of discontent was building; the dissatisfaction of the apathetic masses was building into a dramatizing event that would place this issue on the American agenda. The American high school system had 200,000 students in 1890, but had swelled to over two million students by 1920. In Tennessee, it was no exception; less than 10,000 students were in Tennessee high schools in 1910; and by 1925, more than 50,000 students were attending high school.

High school was becoming what college has become today—an essential step in success for the next generation. Progressive era school attendance laws and free public education through high school, and the need for a high school diploma to enter many new career fields and to gain admission to college created the groundswell of new students being suddenly exposed to

Darwin.

Governor Austin Peay of Tennessee said in 1925, "High schools have sprung up throughout the state, which are the pride of their communities." Dayton High School was no exception. But, Dayton was as Darrow called it, "the buckle of the bible belt." So, the die was cast for the conflict over Darwin.

How important was this trial? The ACLU didn't pick Clarence Darrow at random—he was the most famous defense attorney of the era. William Jennings Bryan was equally as great a name in representing the agrarian populist agenda. These two giant personalities alone would attract the media attention that both sides eagerly sought to galvanize the issue in the minds of the public.

The trial attracted more than 200 journalists from around the world including the renowned H.L. Mencken and Walter Lippmann. WGN from Chicago covered the trial with what had to be one of the first remote broadcasts in the century. Western Union sent more than 25 telegraphers to Dayton to handle the overflow of information traffic going into and out of Dayton's small Western Union office. When Bryan took the stand as the state's expert witness, the courtroom was so full, the trial was moved outside for fear of collapsing the floor of the courtroom.

The defense knew they had no defense. Scopes was clearly in violation of state law, and the state had the right to set that law by majoritarian democratic methods. But, it was *not* Darrow's or the ACLU's intention to win the case; rather, it was their intention to focus national and international attention on the

irrational foundations of Christian impact on education. The trial was the dramatizing event that agendized the issue in the Public Policy Agenda Setting Process Model. To make Bryan look bad was to make the whole religion dominated public education system look bad. They had succeeded by the time Bryan had finished his testimony. Scopes paid a \$100 fine and moved off into obscurity.

#### The Aftermath

The epilogue of this issue is difficult to determine since it seems to be an ongoing conflict as religion continues to exercise tremendous energy in influencing American culture throughout the remainder of the 20<sup>th</sup> century and into the early 21<sup>st</sup> century. Although the religious fervor of the time was reduced as Southerners began to come to grips with science and modernism, the churches have always insisted on maintaining their place in the firmament of the American scene and continue to do so to this day but to a greater or lesser degree than before depending on which factors are being analyzed.

The Jeffersonian ideology will likely never fade entirely from the American traditions of democracy and the culture of freedom—and maybe we should hope it never does. There will always be a strong sense of community which is tied to the soil even as a necessary modern Hamiltonian administrative state manages an ever more heterogeneously complex society.

Regardless of the immediate outcomes and the long term consequences, the Butler Bill was ultimately repealed. Indeed,

today the reverse seems to be the case of the times: a new bill is needed to allow the teaching of creation science in the public schools. Opponents believe that exposing students to creationism is violating separation of church and state in the public school curriculum. The elite experts of the Hamiltonian state would be loath to surrender their hard fought gains after establishing their hegemony over who will be making decisions in society.

To teach anywhere today in the public school system, the educator must have a degree in education (or the required amount of credit hours in education), a license or certificate issued by the state, and must follow a detailed curriculum lesson plan designed and approved by the state with little opportunity to deviate from the state approved plan. A Hamiltonian state victory was complete.

#### Conclusion

The significant impacts of this cultural conflict between religion and science (Jefferson and Hamilton) often revealed themselves in the curriculum content of public education and who controlled that content. That the curriculum changed to reflect an anti-evolution crusade, and changed again to reflect the force of modernism, and apparently may change again to allow an old voice with a new tune to enter the schoolrooms of the next generation.

For Dewey, the school would be the agent of nature—benevolently shaping souls. "The moral responsibility of the

school, and of those who conduct it, is to society." The problem is what do educators do when society is in flux—undecided about what is good knowledge to teach? (Schubert, 1986). This debate continues today as we argue over academic freedom and tenure as mentioned earlier. Highly polarized issues cannot be kept out of the classroom (and should they); consequently, faculty are increasingly at risk to teach at either end of a polarized issue.

As James Q. Wilson wrote in Moral Sense, 1993, "God is dead or silent, reason suspect or defective, nature meaningless or hostile. As a result, man is adrift on an uncharted sea, left to find his moral bearings with no compass and no pole star, and so able to do little more than utter personal preferences, bow to historical necessity, or accept social conventions" (p.5). Professors today can be criticized for just insisting that their students think critically—when in reality, they do not want to.

Hamilton would say that Wilson had a point and this was why he was so opposed to pure democracy. Society needs the leadership of the learned—a selected elite. He had a Darwinian view of selecting who is best fit to serve in public office—leading society in the right direction was too important a mission to leave to chance.

More importantly Wilson wrote, "But, the lives of most people are centered around the enduring facts of human existence, coping with family, establishing relationships, and raising children" (p.6). This is why education will be determined by an elite group rather than Bryan's majoritarian

democracy. The elite group has the luxury of knowing what is important to know because they have self-selected the task of learning it.

As John I. Goodlad states in Klein (1991, p. 16), "much of curriculum making is a political activity—politicians are into decisions educators thought were theirs to make. Politicians, yet, follow the advice and counsel of experts in writing their legislation on any public matter (Palumbo, 1994; and Rushefsky, 1996).

Even today, in the public school system, teachers are virtually powerless to influence their curriculum content in any meaningful way; and the university faculty, those who ought to know and decide what to teach future teachers, are rapidly losing their power to determine the direction of the university—the place the elite of the future are to be taught. It is most likely that Hamilton would have opposed this level of state control. But, the logic of his ideology can be extended all the way to state domination over individualism and communitarian values. It has already occurred in public education.

William H. Schubert (1986, p.1) asks, "What knowledge is most worthwhile? Why is it worthwhile? How is it acquired or created?" He later offers, "Curriculum in any society or culture is and should be a reflection of that culture. The job of schooling is to produce salient knowledge and values for the succeeding generation" (p. 29). So, what has the state decided is appropriate knowledge and values to teach?

In this view, it would seem that Oliva's second axiom is

confirmed as the clash of cultural imperatives between science and religion was examined. Ultimately, right or wrong, to the survivor goes the power of determining the curriculum content capable of influencing the current culture for the "succeeding generation." The Hamiltonian state world-view prevailed. But, will society be happy with the outcomes?

## References

Armstrong, Karen (1993). A History of God: The 4,000-Year Quest of Judaism, Christianity and Islam. New York: Ballantine Books.

Bennett, William J. (1988). Our Children & Our Country: Improving America's Schools and Affirming the Common Culture. New York: Simon and Schuster.

Bennett, William J. (1992). The De-Valuing of America: The Fight for Our Culture and Our Children. New York: Summit Books, Simon & Schuster.

Bloom, Allan (1987). The Closing of the American Mind. New York: Simon and Schuster.

Bloom, Allan (1990). Giants and Dwarfs: Essays 1960-1990. New York: Simon and Schuster.

Breisach, Ernst A. (1993). American Progressive History: An Experiment in Modernization. Chicago, IL: University of Chicago Press.

Bromwich, David (1992). Politics by Other Means: Higher Education and Group Thinking. New Haven, CT: Yale University Press.

Carter, Stephen L. (1993). The Culture of Disbelief: How American Law and Politics Trivialize Religious Devotion. New York: Anchor Books, Doubleday.

Carter, Stephen L. (1998). The Dissent of the Governed: A Meditation on Law, Religion, and Loyalty. Cambridge, MA: Harvard University Press.

Chernow, Ron (2004). Alexander Hamilton. New York: The Penguin Press.

Cohen, Bernard I. (1995). Science and the Founding Fathers. NY: W.W. Norton and Sons.

Cooper, William J. Jr. (2000). Jefferson Davis, American. NY: Alfred A. Knopf.

Crunden, Robert M. (1982). Ministers of Reform: The Progressives' Achievement in American Civilization, 1889-1920. New York: Basic Books.

Dewey, John (1929). The Quest for Certainty. In Barbara MacKinnon (Ed.), American Philosophy: A Historical Anthology (pp. 264-277). Albany, NY: State University of New York Press.

Ezell, John Samuel (1975). The South Since 1865 (2nd ed.). Oklahoma City, OK: University of Oklahoma Press.

Feynman, Richard P. (1998). The Meaning of It All: Thoughts of a Citizen-Scientist. Reading, MA: Addison-Wesley.

Fletcher, John Gould (1930). Education, Past and Present. In V. Rock (Ed.), I'll Take My Stand: The South and the Agrarian Tradition (pp. 92-121). Baton Rouge, LA: Louisiana State University Press.

Geel, Tyll van (1991). Two Visions of Federalism and the Control of the Curriculum. In Klein, Frances M. (Ed.), The Politics of Curriculum Decision-Making: Issues in Centralizing the Curriculum (pp. 42-66). Albany, NY: State University of New York Press.

Gilbert, James (1997). Redeeming Culture: American Religion in an Age of Science. Chicago: University of Chicago Press.

Hager, Thomas (1995). Force of Nature: The Life of Linus Pauling. New York: Simon & Schuster.

Hall, B. C. & C. T. Wood (1995). The South. New York: Scribner.

Hayek, F.A. (1952). The Counter-Revolution in Science. Indianapolis, IN: Liberty Press.

Hofstadter, Richard (1944). Social Darwinism in American Thought. Boston, MA: Beacon Press.

Hofstadter, Richard (1955). The Age of Reform. New York: Vintage Books, Random House.

Hofstadter, Richard (1962). Anti-Intellectualism in American Life. New York: Vintage Books, Random House.

Kanigel, Robert (1997). The One Best Way: Frederick Winslow Taylor and the Enigma of Efficiency. NY: Viking Press.

Kennedy, Roger G. (2000). Burr, Hamilton, and Jefferson: A Study in Character. Oxford: Oxford University Press.

Kuznetsov, Boris (1979). Einstein, Science and Culture. In A.P. French (Ed.), Einstein: A Centenary Volume (pp. 167-183). Cambridge, MA: Harvard University Press.

Larson, Edward J. (1997). Summer for the Gods: The Scopes Trial and America's Continuing Debate over Science and Religion. New York: Basic Books.

Newman, John Henry (1899). The Idea of a University: Rethinking the Western Tradition. New York: Longman, Green.

Oliva, Peter F. (1997). Developing the Curriculum (4th ed., Rev.). New York: Addison Wesley Longman, Inc.

Palumbo, Dennis J. (1994). Public Policy in America: Government in Action (2nd ed.). Orlando, FL: Harcourt Brace College Publishers.

Popejoy, Michael W. (1994). The Matthew Effect. Unpublished doctoral dissertation, Florida Atlantic University.

Pursell, Carroll (1995). The Machine in America: A Social History of Technology. Baltimore: The Johns Hopkins University Press.

Randall, Willard Sterne (2003). Alexander Hamilton: A Life. NY: HarperCollins Publishers.

Rushefsky, Mark E. (1996). Public Policy in the United States: Toward the 21st Century (2nd ed.). Albany, NY: Wadsworth Publishing Company.

Schubert, William H. (1986). Curriculum: Perspective, Paradigm, and Possibilities. Upper Saddle River, NJ: Prentice-Hall.

Schubert, William H. (1991). Historical Perspective on Centralizing Curriculum. In Klein, Frances M. (Ed.), The Politics of Curriculum Decision-Making: Issues in Centralizing the Curriculum (pp. 98-118). Albany, NY: State University of New York Press.

Solomon, Robert C. and Kathleen M. Higgins (1996). A Short History of Philosophy. New York: Oxford University Press.

Steel Ronald (1980). Walter Lippmann and the American Century. Boston, MA: Atlantic Monthly Press Book; Little, Brown and Company.

Will, George F. (1994). The Leveling Wind: Politics, The Culture, and Other News 1990-1994. New York: Viking.

Willis, James F. & Martin L. Primack (1989). An Economic History of the United States (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Wilson, Edward O. (1998). Consilience: The Unity of Knowledge. New York: Alfred A. Knopf.

Wilson, James Q. (1993). The Moral Sense. New York: The Free Press, Macmillan, Inc.