

The Tragedy of Theology: How Religion Caused and Extended the Dark Ages

A Critique of Rodney Stark's *The Victory of Reason*

ANDREW BERNSTEIN

The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success, by Rodney Stark. New York: Random House, 2005. 304 pp. \$25.95 (cloth), \$15.95 (paperback).

In recent decades, medieval scholars have persistently advanced the thesis that the Dark and Middle Ages were not actually dark—that the 1,000-year period stretching from the fall of Rome (roughly 500 AD) to the Renaissance (roughly 1500) was an era of significant intellectual and cultural advance. This trend has culminated in the claims of Rodney Stark's *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (and similar claims presented in Thomas Woods's *How the Catholic Church Built Western Civilization*). That such a theory would be welcomed by the religious right is not surprising. However, what might surprise some—and what is certainly ominous—is that such major organs of the liberal press as *The New York Times* and *The Chronicle of Higher Education* (the leading publication for university professors and administrators) have treated Stark's book with significant respect. This essay will demonstrate that such respect is entirely undeserved.

The thesis of Stark's book is that the Catholic Church promoted a cultural commitment to reason that enabled the West to rise. Medieval Christianity was

Andrew Bernstein holds a Ph.D. in philosophy from the graduate school of the City University of New York. He is a visiting professor at Marist College. His book, *The Capitalist Manifesto: The Historic, Economic and Philosophic Case for Laissez-Faire*, was published in 2005 by University Press of America.

fundamentally, perhaps exclusively, responsible for the great progress wrought by Western Civilization in philosophy, the arts, science, technology, and freedom. As Stark states his claim:

But if one digs deeper, it becomes clear that the truly fundamental basis for . . . the rise of the West was an extraordinary faith in reason.

The Victory of Reason explores a series of developments in which reason won the day, giving unique shape to Western culture and institutions. The most important of these victories occurred within Christianity. . . . While the other world religions emphasized mystery and intuition, Christianity alone embraced reason and logic as the primary guide to religious truth. . . . Encouraged by the Scholastics and embodied in the great medieval universities founded by the church, faith in the power of reason infused Western culture, stimulating the pursuit of science and the evolution of democratic theory and practice.

The success of the West, including the rise of science, rested entirely on religious foundations, and the people who brought it about were devout Christians.¹

This book, and others like it—along with their admiring treatment by the mainstream liberal press—are signs of the resurgence of Christianity in America. This is all the more frightening because the arguments are being delivered and embraced at an intellectual, not merely a grassroots, level. If such arguments were sound, their growing acceptance among contemporary intellectuals would present no problem; but, as will be shown, this pro-religion thesis, although convincing to some, is egregiously and provably mistaken.

Stark, a professor of social sciences at Baylor University, is absolutely correct in his rare identification that a commitment to reason was the fundamental cause of the spectacular progress achieved in the West and nowhere else. But he is profoundly mistaken in ascribing the basis of that commitment to Christianity. Indeed, the West has risen much more slowly and incompletely than it otherwise might have, precisely because of its deep ambivalence to reason. Throughout the ages, and continuing to this day, there has existed in the West a chronic backsliding into irrationality that has often tragically exceeded its commitment to rationality. There is a profound dualism in Western thought: Its dedication to reason, though certainly outstripping that of other cultures, exists in desperate conflict with several versions of unreason, including faith. Expressed in terms of major figures, Jesus and his followers—not merely Aristotle and his—have been enormously influential in Western thinking. Christianity, emphatically including the medieval Church, more than any other single factor, is responsible for the irrationality of Western society. The commitment to rationality is fundamentally a legacy of an-

cient Greece—preeminently of Aristotle—and of subsequent periods when the Greek element was dominant, for example, the 18th-century Enlightenment.

Stark's errors are rampant and across-the-board. They span the fields of history and, above all, philosophy. Indeed, as will be shown, Stark's claims are historically false and philosophically impossible.

History

Stark claims that “the era from the fall of Rome through the Middle Ages was a time of spectacular technological and intellectual progress that erupted when innovation was freed from the grip of Roman despotism.” Similarly: “Christian commitment to reason and progress wasn't all talk; soon after the fall of Rome, it encouraged an era of extraordinary invention and innovation.” He describes the development of water mills, dams, and windmills—and repeatedly discusses improvements in agriculture that significantly increased production of food. For example, he claims that “medieval Europe greatly increased its agricultural production by pumping water off potential cropland,” and that “these incredible gains in agricultural productivity so reduced the need for farm labor and increased yields that they greatly facilitated the formation and feeding of towns and cities.” After other similar claims, Stark concludes: “Not only did Europeans eat far better during the Dark Ages than in Roman times but they were healthier, more energetic, and probably more intelligent.”²

Projecting such unsubstantiated fantasies is Stark's error—which is identical to that of the anti-capitalist Left—of ignoring the entire field of economic history. Economic history is highly relevant, as it provides men with whatever factual data can be ascertained regarding human living standards of the past. Critically, it is supported neither by arbitrary assertions nor by woozy evaluations but by actual evidence.

One of the leading thinkers of recent decades in this field is the Dutch economist, Angus Maddison. According to Maddison's research, Europe suffered through *zero economic growth* in the centuries from 500 AD to 1500, the exact period that Stark describes. Maddison shows that for a millennium there was no rise in per capita income, which stood at an abysmally low \$215 in 1500. Further, he estimates that in the year 1000, the average infant could expect to live to roughly the age of 24 years—and that a third would die in the first year of life. These are global estimates, with Europe showing no appreciable difference from the rest.

Not surprisingly, per capita living standards show no dramatic increases until the 18th-century Enlightenment—the beginning of the Industrial Revolution.³

While other economic historians argue that some economic growth did take place in the late Middle Ages, they nevertheless recognize that the growth was of so minimal a degree that it hardly improved the horrifying destitution of the European masses. For example, the research of economist Graeme Snooks indicates that economic growth occurred in England in the six centuries between 1086 and 1688. “If the average person in 1086 had about one-sixth the income of the average person in 1688, he or she did not have much. . . . English peasants in 1086 had little more than enough food to keep them alive, and sometimes not even that. Houses were crude, temporary structures. A peasant owned one set of clothes, best described as rags, and little else.”⁴

Remarkably, Stark lists in his bibliography several leading historians who concur with these findings. For example, the superb French historian Fernand Braudel, writing about the pre-18th-century era, states that: “Famine recurred so insistently for centuries on end that it became incorporated into man’s biological regime and built into his daily life. . . .” Braudel points out, for instance, that although France was, by standards of the day, a relatively prosperous country, it is nevertheless believed to have suffered ten *general* famines during the 10th century; twenty-six in the 11th; two in the 12th—and these are estimates that do not even count the “hundreds and hundreds of *local* famines. . . .”⁵ Even granting that there are severe difficulties inherent in estimating medieval living standards with any degree of precision, the conclusion must be that what was then considered relative prosperity was, by comparison to prior and later ages, utter destitution.

Further, European sewage and sanitation regressed back to primitivism during this era. Human waste products were often thrown out the window and into the street or simply dumped in local rivers. (By contrast, ancient Rome had been significantly more advanced: “major cities of the Empire installed drainage systems to which latrines were connected”—and the “wealthy enjoyed such luxuries as indoor plumbing . . . even the indigent had access to public baths.”) With the streets strewn with garbage and running with urine and feces—and with the same horrifying conditions permeating the rivers and streams from which drinking water was drawn—vermin and germs multiplied, and disease of every kind, untreatable by the primitive medical knowledge of the day, proliferated. Between 1347 and 1350, for example, the bubonic plague—the infamous “Black Death”—spread by the fleas that infest rats, ravaged Western Europe, obliterating roughly 20 million people, fully one-third of the human population. Norman Cantor, the

leading contemporary historian of the Middle Ages, states: “The Black Death of 1348–49 was the greatest biomedical disaster in European and possibly in world history.” A Florentine writer of the era referred to it simply as “the exterminating of humanity.”⁶

Finally, the early Middle Ages witnessed a stupefying decline in levels of education and literacy from the Roman period. In the endemic warfare of the period, human beings lost the skill of writing and, largely, of reading. “In the time of Augustine’s youth [4th century AD] . . . even a Christian got a reasonably good classical education. A few generations later, literacy was a rarity even among the ruling classes.” For example, during the 8th century, Charlemagne maintained that even the clergy knew insufficient Latin to understand the Bible or to properly conduct Church services.⁷

A related disaster was that Classical learning was largely lost in the West. One reason was that, in the days of the Roman Empire, educated Romans studied the writings of Plato, Aristotle, and other thinkers in their original Greek, so there had been no need to translate these writings into Latin. Although the conquering barbarians learned some Latin, Westerners no longer learned Greek. The loss of literacy in Greek was catastrophic for civilization, for it meant “the simultaneous loss of philosophy, mathematics, medicine, engineering, and science.”⁸

Andrew Coulson, a researcher in the field of educational history, points out that whereas the Greeks were fascinated by the natural world, taking pioneering steps in such sciences as anatomy, biology, physics, and meteorology, the Christians replaced efforts to understand the world with an attempt to know God; observation-based study of nature was, accordingly, subordinated to faith-based study of scripture. A decline in learning consequently afflicted every cognitive subject. “What limited medical knowledge had been accumulated by Greek and Roman physicians was supplanted by utter mysticism.” For example, St. Augustine believed that demons were responsible for diseases, a tragic regression from Hippocrates. Scientific work in general declined as interest in the physical world did. The overall result? “From the standpoint of mass education . . . the medieval era was indeed a dark age. Despite isolated pockets of learning concentrated around the monasteries of Europe, the overwhelming majority of the populace was uneducated and illiterate.”⁹

Contributing to the educational debacle, in 529 the Christian emperor, Justinian I, ruling the Eastern Empire from Constantinople and holding that Greek philosophy was “inherently subversive of Christian belief,” closed all the pagan schools of philosophy, including Plato’s Academy, which, for 900 years, had special-

ized in the teachings of its founder. To fully enforce his ban, Justinian forbade any pagan to teach. (Boethius (480–525), a Christian and the last serious philosopher for 350 years, had been educated in the great pagan schools.) As a result, nobody in the West would have the opportunity to study the achievements of Greek culture for six interminable centuries. As the eminent historian, Will Durant, observed: “Greek philosophy, after eleven centuries of history, had come to an end.”¹⁰

W. T. Jones, the 20th century’s leading historian of philosophy, succinctly captured the essence of the decline, and of Christianity’s causal role in promoting it, when he stated: “Because of the indifference and downright hostility of the Christians . . . almost the whole body of ancient literature and learning was lost. . . . This destruction was so great and the rate of recovery was so slow that even by the ninth century Europe was still immeasurably behind the classical world in every department of life. . . . This, then, was truly a ‘dark’ age.”¹¹

That some advances were made during this millennium is not to be doubted, and Stark recounts them in detail. But by the standards of the post-18th-century, secular West, such progress was relatively—and enormously—insignificant. In effect, the minor advances are red herrings, for they provided little or no relief from the endemic misery under which Western Europeans suffered for centuries. Stark’s claim that the period was one of “extraordinary invention and innovation” is a grotesque exaggeration—at best. An era of “extraordinary invention and innovation” would involve equally extraordinary technological advancement and thus significantly improve men’s living standards. At the very least, Stark implies—and, in some cases, openly asserts—that this is what happened during the Middle Ages. In fact, nothing of the kind occurred.

Important claims made by Stark are egregiously in error. For example, he states: “The idea that Europe fell into the Dark Ages is a hoax originated by antireligious and bitterly anti-Catholic, eighteenth-century intellectuals who were determined to assert the cultural superiority of their own time and who boosted their claim by denigrating previous centuries as—in the words of Voltaire—a time when ‘barbarism, superstition, [and] ignorance covered the face of the world.’”¹² Unfortunately for the men of the period, Stark’s claim that the European Dark Age of the 5th–9th centuries was “a hoax” is not remotely borne out by the facts. The tragic truth is that from the fall of Rome until the Medieval Renaissance of the 12th and 13th centuries—a *full six hundred years*—Western Europe suffered through a period of material penury and intellectual deprivation when compared to both the Classical age that preceded it and the Renaissance that followed it.

By contrast, the 18th and 19th centuries witnessed the full flowering of the Industrial and Technological Revolutions. These were centuries not of Saint Boniface converting the heathens, and of minor improvements to windmills and water mills that still left men starving—but of James Watt and the steam engine, Thomas Edison and the electric lighting system, Alexander Graham Bell and the telephone, the Wright brothers and aviation, Henry Ford, Andrew Carnegie, John D. Rockefeller, and industrial mass production of consumer goods—and, consequently, these were centuries of skyrocketing living standards and life expectancies. This was an era of tremendous intellectual and material advance. The 18th and 19th centuries were a period of “extraordinary invention and innovation.” The 8th and 9th centuries were not.¹³

What was the basic cause of such a long period of stagnation, especially when contrasted with the enormous forward motion men have created in just the past 250 years? To answer this question, it is necessary to identify both the fundamental cause of human progress and the social condition its flourishing requires.

The Church vs. Reason

There are two principles that one must grasp in order to understand Stark’s errors; both principles were identified by Ayn Rand. The first is that the rational mind is man’s fundamental tool of survival and progress. The second is that, in order to function, the mind requires liberty; it must be fully unshackled, free to pursue any avenue of thought or research it deems important.

The 18th-century Enlightenment, and the principles it inherited from the Renaissance and the Age of Reason, gave rise to the American Revolution, and vastly increased political-economic freedom throughout the Western world. It must not be forgotten that the revolutionaries who created the American Republic were, in many cases, the leading minds of the American Enlightenment: Benjamin Franklin, Thomas Jefferson, Thomas Paine, James Madison. One result of such vastly increased liberty has been extraordinary intellectual advance, especially in theoretical and applied science, in technological development and industrialization, and in medical research—all of which has led to living standards and life expectancies vastly higher than during any prior historical epoch. When the Isaac Newtons, the Charles Darwins, the Thomas Edisons, the Ayn Rands, and the Jonas Salks do not have to kowtow to political or religious authority, and cannot be legally suppressed by church or state, they are free to create the new ideas, inventions, and innovations that greatly improve man’s life on earth. Did such

freedom exist during the Middle Ages? If the mind was not free—if it was wholly or largely suppressed—then one must expect an era of stagnation, even regression. If the mind was, indeed, substantially repressed during this era, what was the Church’s role in such suppression?¹⁴

In fairness to the medieval Church, several points must be made at the outset. First, there were great thinkers during this period—Albertus Magnus and Thomas Aquinas are two illustrious examples. Second, these thinkers were all devout Catholics, indeed, generally members of the Catholic clergy. Third, the official position of sundry popes and high-ranking Church officials was, on occasion, to encourage education and intellectual advance (albeit with endless qualifications and restrictions). Fourth, as widely advertised, Catholic monasteries were, at times, a conduit of classical wisdom, as monks laboriously copied and saved the few surviving ancient manuscripts. Fifth, although heretics and other freethinkers were continually suppressed, it must be noted that a condemned heretic could, in every case, save his life right up to the last moment by recanting his illicit beliefs. It might be damning the medieval Church with faint praise, but it is nonetheless true that it was not a murderous institution on the same order of the regimes founded by the National Socialists or Communists.

Further, while the Church was an integral component of the *ancien regime*—the feudal system that brutally suppressed the serfs and commoners—if one is inclined to be generous, one might argue that, in the chaotic centuries following Rome’s collapse, the tribal chiefs and warlords who rose to power and declared themselves aristocrats held a whip-driven primordial power not to be mitigated by an institution theoretically founded to save souls. In other words, it is at least possible that responsibility for the endless bloody warfare, and the brutal suppression of serfs and commoners, did not lie primarily at the doorstep of the Church.

Nevertheless, institutions, like individual men, are often mixtures of good and evil. Despite such apologia, and on the most generous terms imaginable, the Catholic Church was, and remains, a force of incalculable evil. The reason starts with the nature of orthodoxy and its pervasive hostility toward heresy. Orthodoxy, in this context, means the establishment of an official faith-based doctrine and the requirement, under threat of excommunication, even death, of uncritical conformity to it. *Webster’s Collegiate Dictionary*, 9th edition, defines “heresy” as: “adherence to a religious opinion contrary to church dogma.” Indeed, a heretic is a member of a religious denomination who disagrees with (or merely questions) some aspect of that denomination’s doctrine. In short, a heretic is nothing more

than an independent mind whose freethinking leads him into conflict with the prevailing religious sect.

Over literally centuries of theological dispute, the Church hammered out its official position regarding hundreds of religious controversies—including those of the Trinity, the Eucharist, the problem of evil, and countless others. Predictably, given the logical impossibility of proving any faith-based, transcendent claim, there was endless intellectual disagreement with the official conclusions. Many of those who rejected the orthodox findings were condemned as heretics. What is the history of the Church's dealings with those Catholic thinkers independent enough to dispute some aspect of its official doctrine? It is not pretty.

Consider several examples that indicate the essence and extent of the suppression. The Arian Heresy is a representative place to start. Arius (256–336 AD), a presbyter of the Church in Alexandria, in order to protect monotheism, taught that Christ is not perfect and eternal like God the Father, but, rather, was created by God out of nothing. In short, if monotheism was true, as Arius certainly claimed it was, then Jesus could not be God. As Jones made the point: “He [Jesus] must have his own nature and an essence different from God's.”¹⁵ The conflict between the Arians and those who upheld the Trinity—the belief that Jesus is God, but distinct from God the Father, but nevertheless that God is one—was a bitter struggle. The Emperor Constantine called the Council of Nicea, a conference of Church bishops in 325, to arbitrate the dispute; it upheld the Trinitarian viewpoint and condemned Arius's theory. The Arians refused to accept theological defeat and, ultimately, thousands were killed in the century-long struggle that ensued.

Philosophically, Arius was a distant epistemological descendant of the Greek proponents of rationality, seeking to make logical sense of the universe, including the nature of Jesus and God the Father. But those defending, and transforming into orthodoxy, the doctrine of the Trinity, upheld the faith-based notion that Christian belief did not have to be rationally intelligible. Therefore, “the Arian controversy points up important differences in method and approach, as well as in basic outlook, between the Greek and Christian mentalities. . . . The solution that won out, and became orthodox, was a sign that, for better or worse, the Church had assigned reason a subordinate place in its scheme of things.”¹⁶

In the same century, the Donatist Heresy—the belief that the Church's sacraments are ineffective if performed by morally unworthy priests—was ruthlessly expunged. “The Donatists were proscribed [by the Church]; many were exiled; many others were killed or committed suicide.” St. Augustine (354–430), who reluctantly supported the persecution, held that its net result was humane, as it daily

brought men from the darkness of ignorance to “the living and true God.” Jones observed that: “In this way the basis was laid and authority was provided for the institution of the Inquisition—for the cooperation of Church and state in the holy work of extirpating heresy and dissent and of saving souls against their wills.”¹⁷

The Manichean Heresy, which has for millennia stubbornly resisted all attempts to stamp it out, is an attempt to resolve the implacable problem of evil: How can evil exist in a universe created and governed by an all-good, all-powerful God? The Manichean belief, plausible on religious premises, is that God is all-good but not all-powerful. God, in effect, is a more powerful version of Batman: He fights evil relentlessly and effectively, but evil has undeniable power in the world.

Although Manicheism was suppressed by the Church late in the 5th century, it re-emerged in a widespread form during the 12th and 13th centuries. The Albigensian or Catharist Heresy, as it was known during this specific renewal, was exterminated in a bloody war called by Pope Innocent III in 1208. The Pope’s army of heretic hunters stormed the city of Beziers in 1209. Both loyal Catholics and Catharists of the city took refuge in the churches; the invaders burst in and slaughtered everyone—men, women, children, babies, invalids, priests. In a story that may be apocryphal, the papal emissary, Arnald-Amalric, when informed that many sincere Catholics inhabited the city, responded: “Kill them all. God will recognize His own.” There is no doubt that he wrote gleefully to the Pope after the massacre, proclaiming that “nearly twenty thousand of the citizens were put to death, regardless of age and sex. The workings of divine vengeance have been wondrous.”¹⁸ The sect limped on in vastly diminished numbers for another century; the last Catharists were burned in Italy in 1330.

The Catharist writings were burned, orthodoxy triumphed, and the Papal Inquisition was established in 1227. “Church and state agreed that impenitent heresy was treason, and should be punished with death.”¹⁹ These were the bitter results of the crusade against the Albigensian Heresy. Not snidely, but in an utterly serious manner, Stark’s critics should ask him: Is this what you mean by your claims of the medieval Church’s support for reason?

Nor was proscription for heresy limited to those who challenged specific tenets of the faith. All original thinkers lived under threat of condemnation. For example, from Boethius in the 6th century to Abelard in the 12th—a *full 600 years*—there was merely one original thinker in philosophy: John Scotus Erigena (810–877). So, naturally, several of his conclusions were condemned in 855—and one of his books so successfully burned that not a single copy of it survived.

Peter Abelard (1079–1142), the most brilliant European mind in centuries, was hounded for decades by the official watchdogs of Church dogma. In 1121, a Church council condemned Abelard’s writing on the Trinity and compelled him to cast his book into a fire. In 1141, sixteen propositions from his books, including his definition of sin, were condemned. Shortly thereafter, Pope Innocent II imposed a sentence of perpetual silence on him, confining him to a monastery. Abelard, a master of Aristotelian logic, infuriated Church authorities by his refusal to exclude any precept of faith from rational analysis. “What disturbed the Church more than any specific heresy in Abelard was his assumption that there were no mysteries in the faith, that all dogmas should be capable of rational explanation.”²⁰

One of Abelard’s contemporaries, William of Conches (1080–1154), drew the Church’s predictable ire by condemning those who attacked philosophy and science on the grounds that heartfelt faith was sufficient. The wayward scholar soon decided that resignation was preferable to excommunication. William “retracted his heresies . . . abandoned philosophy as an enterprise in which profit was not commensurate with the risk, became tutor to Henry Plantagenet of England, and retired from history.” In the terms of Ayn Rand’s novel *Atlas Shrugged*, William of Conches went on strike.

Jean Roscelin (1050–1120), one of Abelard’s teachers, was threatened with excommunication for challenging the Trinity by teaching that three cannot be one. He was hauled before an Episcopal council in 1092 and presented with a stark choice: retraction or excommunication. He chose retraction.

Even Thomas Aquinas (1225–1274), the greatest philosophic genius since Aristotle, did not escape the Church’s suppressive vigilance. In the Condemnation of 1277, just three years after this great man’s death, the Bishop of Paris, Étienne Tempier, banned as heresies 219 propositions taught at the University of Paris, including several of Aquinas’s.²¹

Further evidence could be adduced (e.g., the systematic repression of the pagans and the Jews, inevitably including the leading minds among them), but the above examples are sufficient to establish the point. During the medieval period, the freethinking human mind, best exemplified by heretics and dissidents, lived under perennial threat of condemnation, proscription, book-burning, excommunication, decrees of perpetual silence, even execution. Stark’s assertions to the contrary notwithstanding, the Church conducted relentless, pervasive, often lethal warfare against the independent mind.²²

A reader will search Stark’s book in vain for any reference to the Church’s suppression of innovative thinkers. For example, the terms “heresy” and “heretics”

are not listed in his Index. His brief mentions of these phenomena give no hint of the grim reality. As an illustration, discussing the theological work of Augustine and Thomas Aquinas, he states: “Of course, thousands of other theologians also tried to make their mark on doctrines. Some succeeded, most were ignored, and some of them were rejected as heretics.”²³ Observe his employment of the vague, misleading, utterly whitewashed term “rejected.” One can conclude from his version of history that heretical theories were merely dismissed as intellectual errors by a community of scholars, without further consequences to their proponents.

Even worse is the discussion of his (mistaken) view that Christianity was responsible for the abolition of slavery. In this context, he writes: “Here too can be seen the principles of theological progress at work, making it possible for theologians to propose new interpretations without engendering charges of heresy.”²⁴ But as already noted, a more accurate account of this period establishes that it was often exceedingly difficult for “new interpretations” to escape charges of heresy. Further, he also makes no mention of the suppression of pagans, Jews, or other dissidents or non-believers.

The truth is that the creative mind cannot function under such a reign of terror. Its holy quest for knowledge does not permit it to cease asking challenging questions, to second-guess truthful principles, to gaze over its shoulder for the Inquisition’s haunting presence, or to impose self-censorship because it is compelled to live in chronic dread of its freedom, even its life. If such are the social parameters imposed, then rational inquiry is curtailed, even stifled; man’s survival instrument is abrogated, and many men will not survive in the inevitable dark age that ensues.

That, under the Church’s aegis, faith was supreme over reason is a clear historical fact. But which specific philosophic principles did medieval Catholicism uphold—and which did it eschew? Which ideas were responsible for the Dark Age? Who codified those ideas? And whose ideas smashed that code to pieces, paving the way for the superlative advances of the modern, secular West?²⁵

Philosophy

The fundamental error in Stark’s account, the misconception underlying and giving rise to his mistaken interpretation of history, is his misunderstanding of the nature of reason. Stark holds that Catholicism is inherently rational, thereby capable of creating significant scientific and technological advance. In effect, his view is: Since the medieval era was a fountain of rational thought, it must have been a

seething cauldron of scientific advance—and, consequently, claims of a “dark age” could only be prejudicial mythology hatched by religion’s cultural enemies.

In the most important section of his book, Chapter One, “Blessings of a Rational Theology,” he claims that medieval “theologians placed far greater faith in reason than most philosophers are willing to do today.” It was Christian attempts to understand the nature of God that set “the precedent for a theology of deduction and inference. . . .” The basis of Western commitment to reason was set because “from very early days Christian theologians have assumed that the application of reason can yield an *increasingly accurate* understanding of God’s will.”²⁶

To understand the profound error committed here, and to grasp the actual nature of reason, one must refer to the basics of philosophy.

Philosophy seeks to answer five major questions: What is the nature of reality? How—by what means—do men gain knowledge of it? What is the nature of man? What is good—and what is evil? What is the ideal society? Religion, as a particular kind of philosophy, is an attempt to answer these questions.

Regarding reality, the essence of religion is belief in metaphysical dualism—that is, two worlds: the natural universe and a transcendent, more important world beyond it. Since there exists no observation-based means to access a “higher” world, it follows that, regarding important knowledge, faith in the infallible truths of a revealed text provides the foundation of cognition. Augustine’s famous dictum that belief is the necessary basis of knowledge is representative of the religious approach. Writes one scholar: “The main use of reason by the mature Augustine is unquestionably to understand what is already believed.”²⁷ Man is a metaphysical biped: his soul being of the transcendent realm and his body being of this one. A fallen creature beset with the sin of his ancestors, his earthly flesh is prone to lust and temptation, which his otherworldly soul must devoutly resist. The good is to place God first and foremost in one’s pantheon of values, and to unquestionably obey His every command; the evil is to disobey. A proper society is theocratic—based on divine commandments as interpreted by the initiated spiritual elite: the clergy.

Religion, as an attempt to answer all the important philosophical questions of human life, is a species of philosophy, which is its genus. It is a faith-based, not a reason-based philosophical system. Religion can be (roughly) defined as: a philosophical system, based in faith, not reason, upholding the existence and supremacy of a transcendent God, who requires unquestioning obedience from the sinful human subjects He created and governs. Religion was the dominant, indeed, ex-

clusive philosophical framework of the early Middle Ages, from the 6th century until, roughly, the 12th.

Augustine (354–430) was the period’s principal influence and intellectual spokesman. His philosophy, though complex in some respects, is, in essential terms, quite simple: Knowledge requires acceptance of authority—God’s first, then the Church’s. Reason is, at best, a supplementary faculty, perhaps able to explicate what is antecedently believed, perhaps not. Only Adam possessed free will. His descendants are grotesquely, irremediably sinful, incapable of saving themselves; all deserve, and most will receive, only damnation; a select few alone will be saved by a rigid process of predestination. Sin is transmitted through sexual intercourse, which is evil and to be avoided except for purposes of procreation—and even then, not to be enjoyed. Though God’s creation is inherently lawful, miracles—violations of nature’s laws—occur repeatedly; numerous men have been raised from the dead, for example. Pride is a lethal sin, especially intellectual pride—commitment to the use of one’s rational capacity to pry into the mysteries of God’s universe. The Greek thinkers were condemned for their “efforts to discover the hidden laws of nature.” Science was damned as the “lust of the eyes.”²⁸

Such a philosophical system is in profound conflict with the intellectual foundations of science. A precondition of science is the view that nature is fascinating, important, superlatively valuable—a conviction logically congruent with the secular understanding that nature is reality. This view is incompatible with the Christian belief that this world is debased and deficient, while the ideal lies beyond man’s earthly grasp. Science begins with observation of facts, not the infallible pronouncements of a revealed text. Further, science (especially its offshoots of applied science and technology) rests upon the premise that rational beings are (at least potentially) good, that man’s earthly life is of value, that knowledge is both attainable and desirable, and that men are worthy of elevated living standards. The idea that man should seek scientific advancement is incompatible with the assumption that men are creatures who are, in Augustine’s pregnant utterance, “foul . . . crooked . . . sordid . . . bespotted . . . and ulcerous,” overwhelmingly (and understandably) condemned to perdition by an outraged deity.²⁹ Stark conveniently ignores these points.

Why did the medieval Church suppress freethinkers who dared to challenge orthodoxy? Because, as a leading historic example of undiluted religion, it was necessarily an institution of undiluted authoritarianism. It saw itself as *the* intermediary between God and hopelessly fallen man, who could not aspire to rise without its intercession. Its orthodoxy was literally the word of God; any deviation

spurned God's earthly agency, thereby the divinity itself—and was, consequently, profoundly intolerable. Where men possess no capacity to ameliorate their earthly lot—much less save themselves—and are utterly dependent on God's Church, any criticism of it is an assault on the deity and undermines the sole institution capable of bringing men redemption. To tolerate independence of thought, given men's loathsome essence, is to tolerate inevitable spiritual sedition. For man to be saved from his ineradicably sinful nature, his mind must be shackled.

Augustine, philosophically a Christian neo-Platonist, glorified the locus of the Platonic-Christian worldview: the metaphysical dualism, the supremacy of a transcendent world, the diminished stature of this one, the ignoble baseness of man's bodily existence. Such fundamentals lead necessarily to the elevation of theology (the study of God) as the ruling cognitive discipline, and the devaluation of science and secular philosophy (the study of nature and man's earthly life).

Herein lies the root cause of the tragedy that was the Middle Ages—and of Stark's fundamental error in ascribing to Christian theology the West's commitment to rational thought. *Reason is an observation-based methodology.* It does not begin with beliefs already accepted on prejudicial grounds, and then proceed to "prove" their truth. Whether studying man, the inner workings of his mind, germs, rocks, insects, atoms, the far reaches of intergalactic space, or anything else, reason proceeds from sensory observation by a method of logical thought embodying Aristotle's famed Law of Non-Contradiction: No existent can be both x and non-x at the same time and in the same respect.

But there is, and can be, no sensory experience of a dimension beyond this one. More to the point, there is no evidence upon which to establish that the existence and activities of material bodies are wrought by an immaterial cause. (How could spirit or consciousness exist without bodily means, e.g., sense organs, nervous system, brain? How could such a non-bodily ghost create, control, or remotely impact bodily beings?) Theologians, and religionists in general, start with a fantasy premise and then proceed to apply rigorous formal logic to tease out its implications. Stark himself points out that "theology consists of *formal reasoning about God.*" This is admirably exact. Theologians, beginning with a wished-for creation of their own minds, analyze that creation's characteristics by rigorous application of the principles of *formal*—that is, *deductive*—logic.³⁰

But the method of reason, properly understood, is emphatically not the employment of formal logic to explicate the consequences entailed by arbitrary premises. Reasoning consists, first and foremost, in observation and induction therefrom. Deductive logic provides knowledge only when applied to premises rooted ultimately in observational fact.

In the history of philosophy, the term “rationalism” has two distinct meanings. In one sense, it signifies an unbreached commitment to reasoned thought in contrast to any irrationalist rejection of the mind. In this sense, Aristotle and Ayn Rand are preeminent rationalists, opposed to any form of unreason, including faith. In a narrower sense, however, rationalism contrasts with empiricism as regards the false dichotomy between commitment to so-called “pure” reason (i.e., reason detached from perceptual reality) and an exclusive reliance on sense experience (i.e., observation without inference therefrom). Rationalism, in this sense, is a commitment to reason construed as logical deduction from non-observational starting points, and a distrust of sense experience (e.g., the method of Descartes). Empiricism, according to this mistaken dichotomy, is a belief that sense experience provides factual knowledge, but any inference beyond observation is a mere manipulation of words or verbal symbols (e.g., the approach of Hume). Both Aristotle and Ayn Rand reject such a false dichotomy between reason and sense experience; neither are rationalists in this narrow sense.

Theology is the purest expression of rationalism in the sense of proceeding by logical deduction from premises ungrounded in observable fact—deduction without reference to reality. The so-called “thinking” involved here is purely formal, observationally baseless, devoid of facts, cut off from reality. Thomas Aquinas, for example, was history’s foremost expert regarding the field of “angelology.” No one could match his “knowledge” of angels, and he devoted far more of his massive *Summa Theologica* to them than to physics.

Here is the tragedy of theology in its distilled essence: The employment of high-powered human intellect, of genius, of profoundly rigorous logical deduction—studying nothing. In the Middle Ages, the great minds capable of transforming the world did not study the world; and so, for most of a millennium, as human beings screamed in agony—decaying from starvation, eaten by leprosy and plague, dying in droves in their twenties—the men of the mind, who could have provided their earthly salvation, abandoned them for otherworldly fantasies. Again, these fundamental philosophical points bear heavily against Stark’s argument, yet he simply ignores them.

Religion as a field, *at its best*, is rationalism—deduction from fantasy premises—not genuine rationality. (At its worst, it repudiates even this attenuated connection to logic in favor of adherence to unadulterated faith.) Stark himself provides a perfect example of this fallacious method. Although it is well known to scholars that Jesus had at least one brother, James, a leader of the Jerusalem church after Christ’s death, Stark asserts, as an illustrious example of Christian

“reasoning,” that “Thomas Aquinas analyzed the doctrine of Christ’s virgin birth to deduce that Mary did not bear other children.” In other words, the religious approach to “truth” is to ignore facts if they clash with logical deductions from bizarre, faith-based premises. Thus even such a monumental genius as Thomas Aquinas—an Aristotelian, a thinker holding great respect for facts and observation, and the greatest Christian philosopher of history—was not immune to the cognitive infection of religious methodology.³¹

By the very nature of its metaphysics, religion is incapable of upholding reason. Religion is compatible only with rationalistic deductions from faith-based premises. And, in the middle ages, if one’s deductions clashed with orthodoxy, one ran the risk of punishment for heresy. Religion and rationality are primordial antipodes. (There is a field of natural religion that employs observation in the attempt to prove God; but it derives its original beliefs from faith, makes gratuitous leaps into the transcendent world, is easily refuted by rational philosophers, and, consequently, its validity is hotly debated even by theologians.)

Rationality includes—indeed, begins with—an inviolable respect for facts. But as Jones points out, the identification of facts, so important to Aristotle and modern secularists, was considered of little value by men of the medieval era. To them, the requirements of salvation were of vastly greater import than the facts of nature. “About things that did not touch one’s faith—about the properties of sapphires or the cure for leprosy, for instance—it did not matter a great deal whether or not one went wrong.”³²

The greatest philosopher in history, the man whose method preeminently embodied observation-based rationality, was Aristotle. Despite his errors, Aristotle’s extraordinary achievements significantly advanced man’s understanding of nature, his method for grasping its properties, and thus his ability to engage in science. It is impossible to recognize the egregious falsity of Stark’s claim that medieval Catholicism, not Greek culture, was preeminently responsible for the West’s commitment to reason, without considering the work and influence of Aristotle.

To Aristotle, reality was fundamentally composed of formed matter, what he called “ousiai” or primary beings (i.e., entities); reality was, therefore, neither a congeries of discrete sense impressions nor a higher spiritual dimension but the realm of nature. Such entities (and all other existents) are what they are (the Law of Identity), and are not what they are not (the Law of Non-Contradiction). Natural change (or process) is rationally analyzed in terms of matter re-formed, of things becoming what they always had the capacity to become. While not properly applicable to inanimate objects, Aristotle’s principle of things striving to actualize

their potential is profoundly fruitful for the understanding of living beings. Study of virtually any subject, from plants to politics, begins with careful observation of a wide range of relevant facts. “He was impressed by the fact that although facts alone do not give understanding . . . facts are nevertheless far more certain than any theory.”³³ Human beings, by realizing their potential for rational thought and conduct, could aspire to, and achieve, excellence, including in the all-important moral sphere. Men could, therefore, be proud—deservedly so—and generally happy over the course of a lifetime.

In contrast to the medievals, Aristotle’s thinking was thoroughly grounded in observation, in naturalism, in rationality—not in rationalistic deduction from arbitrary premises. If modern terms can be applied non-anachronistically to the ancients, his worldview is predominantly, virtually exclusively, *secular*. His interests are nature, life, and man—not super-nature, next life, and god. His extraordinary intellectual curiosity and energy led him to investigate every field known to men of his time—logic, ethics, esthetics, metaphysics, physics, biology, meteorology, and more—and to pioneer man’s understanding in many of them. Throughout the vast corpus of his writing, his work exhibited “the passionate search for passionless truth.” The noted contemporary Aristotle scholar, Jonathan Barnes, makes the point this way: “He [Aristotle] bestrode antiquity like an intellectual colossus. No man before him had contributed so much to learning. No man after him might aspire to rival his achievements.”³⁴

He is the crowning high-point of Greek commitment to the study of nature and science. Much of pre-Aristotelian Greek philosophy—Thales, Anaximenes, Heraclitus, Democritus—was an attempt to understand the difficult questions inherent in the teeming multiplicity of nature: the related problems of change (e.g., How can a baby grow into a man yet remain the same person?) and of the one in many (e.g., How can a plant, an insect, a fish, and a man be the same kind of thing: a living organism?). Aristotle, the seminal logician, brought as much passionate rationality to this work as any of his predecessors—but, in his zeal for observation, he dispensed with their rationalism. As one example, in the *History of Animals*, Aristotle gives an account of an embryo chicken’s development based on careful observation. Quoting Jones: “Aristotle’s method was a healthy corrective to the overrationalism of his philosophical predecessors. . . .”³⁵

How much more so to that of his philosophical successors in the medieval period?

Although hardly a medieval scholar, this writer does not know of any scientist of the Middle Ages prior to Albertus Magnus in the 13th century—a pe-

riod of greater than 600 years—who adopted Aristotle’s painstaking approach to studying nature. Like other medieval thinkers, Albert quoted previous texts, religious or secular, as unquestioned authorities. Additionally, however, he was a first-rate observer of nature, who sailed the North Sea to accumulate specimens for research, and who contributed significantly to both the resurgence of Aristotle studies and the development of medieval science. “Albert both helped to introduce Aristotle’s philosophy of science to the medieval world and challenged prevailing conceptions of nature. In response to the older Augustinian tradition, Albert criticized the notion that ideas in the mind of God . . . exist independently and provide the formal natures of sensible objects. . . . As a result, we are not compelled to rely upon knowledge of God for a knowledge of things. . . . Nature itself can reveal this order to us. With Albert, nature, which had too often been rendered mute by medieval intellectuals, would find its own voice. Once discovered and suddenly made articulate, its voice would gradually liberate science (and the arts) from theology.”³⁶

Prior to Albert, for at least 500 years, the dominant “scientific” figure of medieval Europe had been Isidore of Seville (560–636), whose book, the *Etymologies*, “a hodgepodge . . . mass of information and misinformation . . . was a primary authority for the whole of the early Middle Ages.”³⁷ Isidore, in keeping with the religious spirit of his era, regarded claims about the supernatural realm to be of vastly greater importance and certainty than those about nature. Consequently, he uncritically repeated groundless fables regarding the material world, and placed no importance on sensory observation. Nevertheless, he was, for centuries, quoted as a leading authority on science and, as Jones observes, “twelfth-century science had advanced little beyond Isidore of Seville.”³⁸

Stark knows, of course, but makes little mention that the preponderance of Aristotle’s writings were lost in the West during the Dark Age of the 5th–9th centuries—and that, not accidentally, the Medieval Renaissance of the 12th and 13th centuries largely coincides with the recovery of the full Aristotelian corpus from the great Islamic centers of learning in Spain. It is an historical truism that the significant intellectual advances wrought by Albert, his brilliant student, Thomas Aquinas, and their peers of the early Scholastic period, were under the monumental influence of Aristotle.³⁹

Even today, the profoundly beneficent influence of Aristotle is not fully appreciated. It was not merely (or even primarily) Aristotle’s writings that were lost to the Dark and early Middle Ages; it was his spirit, his approach, his orientation, his cognitive love affair with this world. If one studies the writings of Aristotle—and

the history of them being lost and, centuries later, rediscovered by Western man—one sees clearly the enormously positive and reciprocal causal relationship between the recovery of Aristotle’s works and the Medieval Renaissance.

After interminable centuries of reason serving as a handmaiden of faith—and of secular philosophy and science lying dormant—the men of the 12th and 13th centuries were hungry for greater knowledge of nature and the practical advances such knowledge brings in its train. And who, in the entire history of mankind up until that era, had as extensive a knowledge of nature as Aristotle?

Early in the 12th century, after La Reconquista wrested large portions of Spain from the Muslims and delivered them once again to Catholic dominion, Archbishop Raymund I of Toledo supported Christian, Muslim, and Jewish scholars translating into Latin previously lost Greek masterpieces, including those of Aristotle. And knowledge of those masterpieces—preeminently of Aristotle’s—inspired, in some cases inflamed, the leading thinkers of the period with an even greater passion for the truths of nature.

In sum, Western Europeans rediscovered Aristotle’s writings when they were desperately eager for the wisdom and cognitive method those works contained. It is no exaggeration to claim that when Aristotle’s method of observation-based rationality, in concert with his innumerable specific theories and insights, was culturally prevalent, great advances followed; when absent or suppressed, there ensued only ages miserably dark.

In a staggering reversal of this truth, however, Stark claims that Western commitment to reason and science was a function of medieval Christianity and of Augustine—and that Aristotle and the Greeks were a hindering influence. For example, he writes: “St. Augustine *reasoned* that astrology is false because to believe that one’s fate is predestined in the stars stands in opposition to God’s gift of free will.” Based on such “reasoning” (i.e., on such non-observational, rationalistic deductions from a faith-based premise), Stark claims that science came to the fore in medieval Europe.⁴⁰

Stark, allegedly a supporter of logic, gives little or no credit to Aristotle for the Greek thinker’s revolutionary founding of virtually the entire field of logic. Nor does Stark make any reference to the superlative scientific achievements of Aristotle, Archimedes, Hippocrates, or the like. Instead, he makes such claims as: “The antiscientific elements of Greek thought were withstood by Augustine . . .” and “It was in explicit opposition to Aristotle and other classical writers that the Scholastics advanced toward science.”⁴¹

Stark states that the Greeks were unscientific (even antiscientific), because “their empiricism was quite atheoretical, and their theorizing was nonempirical.” He claims that Aristotle did not permit facts to curtail his theorizing. In *On the Heavens*, the Greek philosopher taught that the velocity with which objects drop toward the earth is directly proportional to their weight; that a rock of ten pounds, for example, will fall twice as fast as one of five. Stark observes wryly that “a trip to any of the nearby cliffs would have allowed him to falsify this proposition.”⁴²

But it can be similarly pointed out to Stark that a trip to the Moody/Jones Libraries on the Baylor University campus would have allowed him access to the full *Works of Aristotle* and sufficient data to disprove *his* theory. For one thing, *On the Heavens* is probably early Aristotle, when he was still much under the influence of Plato and, consequently, more otherworldly, less empirical, and less scientific in his thinking. Although current specialists in Aristotle generally reject many claims of Werner Jaeger, a leading 20th-century Aristotle scholar, they generally affirm his overall insight that The Philosopher evolved from an early Platonic, *quasi-religious* mode of thought to the great scientist/naturalistic philosopher of his mature years.

Even so, in *On the Heavens*, Aristotle often criticizes his predecessors, including Plato, precisely for non-empirical, rationalistic theorizing—and insists that theoretical reasoning always be consonant with sensory observation. For example, he says: “The reason [his predecessors go wrong] is that their ultimate principles are wrongly assumed; they had certain predetermined views, and were resolved to bring everything into line with them. . . . As though some principles did not require to be judged from their results, and particularly from their final issue. And that issue . . . in the knowledge of nature is the phenomena always and properly given by perception.”⁴³

More fundamentally, Aristotle’s groundbreaking work in biology alone refutes Stark’s overall thesis. For Aristotle was, on the one hand, a careful, incisive observer of biological fact. Sir David Ross, the preeminent English-language Aristotle scholar of the 20th century, points out as one example that Aristotle “recognized . . . the mammalian character of the cetaceans—a fact which was overlooked by all other writers till the sixteenth century.”⁴⁴ Similarly, David Lindberg, a leading contemporary expert regarding the history of science, writes that Aristotle “described the placenta of the dogfish . . . in terms that were not confirmed until the 19th century.” Aristotle did not merely exceed prior thinkers in his devotion to observational fact regarding animal species—he was also “the first to undertake the problem of their classification.” He discussed more than five hundred species in

his *History of Animals*; “the structure and behavior of many are described in considerable detail, often on the basis of skillful dissection.”⁴⁵

But, above all, Aristotle sought to explain the *causes* of animals being as they are. He was not content to merely observe, dissect, and describe the parts and functioning of animals; he strove to identify the first principles that *explained* the reasons they are what they are. Professor Allan Gotthelf of the Department of History and Philosophy of Science at the University of Pittsburgh, and one of the foremost contemporary scholars of Aristotle’s biology, made the point this way:

[B]y any reasonable criteria of what counts as a scientific enterprise—the aim of understanding *what* things are and why they are as they are, of achieving that understanding through a discovery of causes, of seeking those causes through a careful and systematic examination of the full range of relevant data, of basing one’s conclusions only on the rational assessment of the evidence, and of organizing it all into a systematic whole, a set of theories with broad explanatory power going back to first principles . . . Aristotle was a *great* scientist, and among the greatest.⁴⁶

It was not without reason that, a full two millennia subsequently, a biologist of no less stature than Charles Darwin could say: “Linnaeus and Cuvier have been my two gods, though in very different ways, but they were mere schoolboys to old Aristotle.”⁴⁷ In a similar vein, Ernst Mayr, one of the most distinguished 20th-century biologists, wrote:

No one prior to Darwin has made a greater contribution to our understanding of the living world than Aristotle. . . . Aristotle’s outstanding characteristic was that he searched for causes. He was not satisfied merely to ask how-questions, but was amazingly modern by asking also why-questions. Why does an organism grow from a fertilized egg to the perfect adult form? . . .⁴⁸

Stark could easily have identified that, today, early in the 21st century, Aristotle is widely and properly recognized as one of the seminal biologists of history—a thinker who, in Lindberg’s terms, “contributed monumentally to developments in the biological sciences.” If a contemporary scholar wishes to denigrate Aristotle’s scientific accomplishments, he should at least familiarize himself with the relevant sources. For example, Stark could have (and should have) read the readily available work of Jonathan Barnes, who, in the midst of discussing Aristotle’s accomplishments in zoology and biology, observed that “his [Aristotle’s] studies on animals laid the foundation of the biological sciences; and they were not superseded until more than two thousand years after his death.”⁴⁹

Overall, Stark’s view that science rests on a theoretical framework of Augustine and Christian theology, and that its development was hindered by Aristotle and

the Greeks, represents a fantastic jumble of errors. That science is not and cannot be grounded in the rationalistic, faith-based deductions of religion has already been established. The fallacious nature of Stark's attempt to sever science from its roots in Greek, especially Aristotelian, thought has been exposed as well.

The Scholastics, the thinkers of the 13th century and for centuries following, were Christian *Aristotelians*. To the everlasting credit of many Catholic scholars of the period, they were fascinated by what "The Philosopher" had written. His works were studied avidly during the medieval renaissance of this period. Thankfully for the modern world, the Scholastics did, indeed, at least initially, "advance toward science." Albertus Magnus and Thomas Aquinas were monumentally important in this regard. But it was the Aristotelian element of the mixture—his naturalism, his secularism, his observation-based rationality—that was responsible for the new surge of interest in nature.

The Scholastics, however, were also *Christian* Aristotelians, and as the centuries wore on, true to Christian methodology, they turned Aristotle's works into authoritative texts, as if based in faith or rationalistic dogma. As a result, these Christian Aristotelians did oppose the beginnings of modern science. But it was the Christian component of the mixture that eschewed the latest empirical findings, clinging to Aristotle's specific conclusions as they clung to beliefs that burning bushes spoke and virgins gave birth. In terms of the respective epistemologies involved, it was the Christian element that relied heavily on authorities—generally refusing to challenge either Holy Scripture or writings of the Church Fathers.

Observe, for example, the verdict imposed on Galileo by the Papal Inquisition, which condemned him because he "held and believed a doctrine which was false and contrary to Holy Scripture." The Inquisition punished Galileo for believing that "one may hold and defend . . . an opinion after it has been declared and defined contrary to Holy Scripture." This latter was, from the Inquisition's perspective, Galileo's darkest transgression. Aristotle's method, on the other hand, was reality-oriented, not text-based—observational and fact-driven, not centered around faith in authorities—and he consequently did not hesitate to challenge earlier authorities, including his respected mentor, Plato.⁵⁰

The truth is that the Scholastics did not move toward science in opposition to Aristotle, as Stark claims. Rather, *they impeded science in spite of Aristotle*. They opposed Galileo in the same way—and via the same method—that, centuries later, Fundamentalists opposed Darwin. As Galileo—though locked in a cultural death struggle with such mentalities—accurately hinted: Aristotle himself, with his overriding respect for evidence, would never have rejected the observational find-

ings revealed by the telescope. But 17th-century Scholastics, clasping Aristotelian content in the death grip of a Christian method, would and did.⁵¹

It is difficult to imagine a book more profoundly mistaken, in so many areas of intellectual inquiry, than Stark's *The Victory of Reason*. Other than his identification—shared with others, especially Ayn Rand—that commitment to reason was the fundamental cause of Western achievements, every major point in the book is egregiously mistaken. To the prospect that this work should be culturally influential, or that the Western world should experience a long-term religious revival, the only rational response is: God forbid.

Endnotes

1. Rodney Stark, *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (New York: Random House, 2005), pp. x–xi.
2. *Ibid.*, xiv–xv, 35, 38–42.
3. Angus Maddison, *Phases of Capitalist Development* (New York: Oxford University Press, 1982), pp. 4–7. Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: Organization for Economic Cooperation and Development, 2001), p.1. Andrew Bernstein, *The Capitalist Manifesto: The Historic, Economic and Philosophic Case for Laissez-Faire* (Lanham, Md.: 2005), pp. 73–136.
4. Graeme Snooks recounted in Joyce Burnette and Joel Mokyr, “The Standard of Living Through the Ages,” in *The State of Humanity*, edited by Julian Simon (Malden, Mass.: Blackwell Publishers, 1995), pp. 136–39.
5. Fernand Braudel, *The Structures of Everyday Life: Civilization and Capitalism, 15th–18th Centuries* (New York: Harper & Row, 1981), pp. 73–78.
6. J. J. Bagley, *Life in Medieval England* (London: B.T. Batsford, 1960), pp. 57–59, 156–159. Mabel Buer, *Health, Wealth and Population in the Early Days of the Industrial Revolution* (New York: Howard Fertig, 1968), pp. 104–105. Norman Cantor, *In the Wake of the Plague* (New York: Perennial, 2002), pp. 6–8.
www.stanford.edu/~mooreChapter2.pdf.
7. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 141–142.
8. Richard Rubenstein, *Aristotle's Children: How Christians, Muslims and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (New York: Harcourt, Inc., 2003), pp. 61–62.
9. Andrew Coulson, *Market Education: The Untold History* (New Brunswick: Transaction Publishers, 1999), pp. 58–60.
10. Will Durant, *The Story of Civilization*, vol. 4, *The Age of Faith* (New York: Simon & Schuster, 1950), p. 123.
11. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 139–142. Richard Rubenstein, *Aristotle's Children: How Christians, Muslims and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (New York: Harcourt, Inc., 2003), pp. 59, 61–62. Charles Freeman, *The Closing of the Western Mind: The Rise of Faith and the Fall of Reason* (New York: Vintage Books, 2005), pp. 268–269.
12. Rodney Stark, *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (New York: Random House, 2005), p. 35.

13. See Andrew Bernstein, *The Capitalist Manifesto: The Historic, Economic and Philosophic Case for Laissez-Faire* (Lanham, Md.: 2005), pp. 73–161.
14. Peter Gay, *The Enlightenment: An Interpretation*, 2 vols. (New York: Knopf, 1966, 1969). Andrew Bernstein, *The Capitalist Manifesto: The Historic, Economic and Philosophic Case for Laissez-Faire* (Lanham, Md.: 2005), 41–54, 70–72, 73–101.
15. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 63–65.
16. Malcolm Lambert, *Medieval Heresy: Popular Movements from the Gregorian Reform to the Reformation* (Malden, MA.: Blackwell Publishing, 2002), pp. 3–8.
17. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 125–127.
18. Will Durant, *The Story of Civilization*, vol. 4, *The Age of Faith* (New York: Simon & Schuster, 1950), pp. 769–776. Charles Freeman, *The Closing of the Western Mind: The Rise of Faith and the Fall of Reason* (New York: Vintage Books, 2005), p. 296.
19. Richard Rubenstein, *Aristotle's Children: How Christians, Muslims and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (New York: Harcourt, Inc., 2003), pp. 140–157. Will Durant, *The Story of Civilization*, vol. 4, *The Age of Faith* (New York: Simon & Schuster, 1950), pp. 769–784. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 67–69.
20. Will Durant, *The Story of Civilization*, vol. 4, *The Age of Faith* (New York: Simon & Schuster, 1950), pp. 931–948. Richard Rubenstein, *Aristotle's Children: How Christians, Muslims and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (New York: Harcourt, Inc., 2003), pp. 88–126. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 190–196.
21. For the quote and examples in the preceding three paragraphs, and for more such examples, see Will Durant, *The Story of Civilization*, vol. 4, *The Age of Faith* (New York: Simon & Schuster, 1950), pp. 949–983 (quote, p. 950).
22. Malcolm Lambert, *Medieval Heresy: Popular Movements from the Gregorian Reform to the Reformation* (Malden, Mass.: Blackwell Publishing, 2002), pp. 194–207. Regarding the persecution of the pagans, see, for example, Ramsay MacMullen, *Christianity and Paganism in the Fourth to Eighth Centuries* (New Haven: Yale University Press, 1997); regarding that of the Jews, see James Carroll, *Constantine's Sword: The Church and the Jews* (Boston: Houghtlin Mifflin, 2001), and Gustavo Perednik, “The Nature of Judeophobia,” www.perednik.org. To study the persecution of many women as “witches” who were religious non-conformists, see Jeffrey Burton Russell, *Witchcraft in the Middle Ages* (Ithaca, NY: Cornell University Press, 1972), Brian Levack, *The Witch-Hunt in Early Modern Europe* (London: Longman, 1995), and Alan Charles Kors and Edward Peters, *Witchcraft in Europe: 400–1700* (Philadelphia: University of Pennsylvania Press, 2001).
23. Rodney Stark, *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (New York: Random House, 2005), p. 7.
24. *Ibid.*, pp. 30–31.
25. Will Durant, *The Story of Civilization*, vol. 4, *The Age of Faith* (New York: Simon & Schuster, 1950), pp. 931–983. Richard Rubenstein, *Aristotle's Children: How Christians, Muslims and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (New York: Harcourt, Inc., 2003), pp. 88–167. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 60–69, 125–126, 172–173, 211.
26. Rodney Stark, *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (New York: Random House, 2005), pp. 8–9.

27. Adrian Hastings, "Reason," *The Oxford Companion to Christian Thought* (Oxford: Oxford University Press, 2000). Quoted in Charles Freeman, *The Closing of the Western Mind: The Rise of Faith and the Fall of Reason* (New York: Vintage Books, 2005), pp. 286–287.
28. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 72–138.
29. Saint Augustine, *Confessions*, translated by J. G. Pilkington (Liveright, NY, 1943), VIII, pp. vii, 16. Quoted in W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), p. 106.
30. Rodney Stark, *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (New York: Random House, 2005), p. 5.
31. *Ibid.*, p.6. L. Michael White, *From Jesus to Christianity* (San Francisco: HarperSanFrancisco, 2004), pp. 149, 219, 229–230, 277.
32. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind* (New York: Harcourt, Brace, Jovanovich, 1969), pp. 169–170.
33. Aristotle, *Metaphysics*, translated by Richard Hope (Ann Arbor: University of Michigan Press, 1975), book I, pp. 3–6; *Posterior Analytics*, translated by G. R. G. Mure in *The Basic Works of Aristotle*, edited by Richard McKeon (New York: Random House, 1941), book II, pp. 184–186; *Nicomachean Ethics*, edited by Richard McKeon, pp. 935–1112; W. T. Jones, *A History of Western Philosophy*, vol.1, *The Classical Mind* (New York: Harcourt, Brace and World, Inc., 1969), pp. 214–311. Sir David Ross, *Aristotle* (New York: Routledge, 1995), pp. 1–16, 161–239. John Herman Randall, *Aristotle* (New York: Columbia University Press, 1960), pp. 27–28, 107–144.
34. John Herman Randall, *Aristotle* (New York: Columbia University Press, 1960), p. 1. Jonathan Barnes, *Aristotle* (Oxford: Oxford University Press, 1982), p. 1. Richard Tarnas, *The Passion of the Western Mind* (New York: Ballantine Books, 1991), pp. 55–68.
35. *History of Animals*, translated by D. W. Thompson in *The Works of Aristotle*, edited by J. A. Smith and W. D. Ross (Oxford: Oxford University Press, 1910–1952, vol. IV (1910), 561a3. Quoted in W. T. Jones, *A History of Western Philosophy*, vol. 1, *The Classical Mind* (New York: Harcourt, Brace and World, 1969), pp. 233–235.
36. William Wallace, "Foreword," *Albertus Magnus On Animals: A Medieval Summa Zoologica*, translated and annotated by K. F. Kitchell and I.M. Resnick, 2 vols. (Baltimore.: Johns Hopkins University Press, 1999), vol. 1, pp. xvi–xx; and, regarding Albert's achievements as a scientist, pp. 18–42. See also A. C. Crombie's magisterial three volume study of the history of science, *Styles of Scientific Thinking* (London: Duckworth, 1994), vol. 2, pp. 1259–61 and 1503, note 53.
37. W. T. Jones, *A History of Western Philosophy*, vol. 2, *The Medieval Mind*, p. 141.
38. *Ibid.*, p. 166.
39. Richard Rubenstein, *Aristotle's Children*, *passim*. Charles Homer Haskins, *The Renaissance of the 12th Century* (New York: Meridian Books, 1970), pp. 278–365.
40. Rodney Stark, *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* (New York: Random House, 2005), p. 6.
41. *Ibid.*, pp. 21–22.
42. *Ibid.*, pp. 13–14, 17–20.
43. Aristotle, *On the Heavens*, translated by J. L. Stocks, *The Complete Works of Aristotle: The Revised Oxford Translation*, 2 vols., edited by Jonathan Barnes (Princeton: Princeton University Press, 1984), 306a 7–17. Werner Jaeger, *Aristotle* (Oxford: Oxford University Press, 1934), *passim*. John Herman Randall, *Aristotle* (New York: Columbia University Press, 1960), pp. 20–22, 28–30.
44. Sir David Ross, *Aristotle* (New York: Routledge, 1995), p. 118.
45. David Lindberg, *The Beginnings of Western Science* (Chicago: University of Chicago Press, 1992), p. 63.

46. Allan Gotthelf, "Aristotle as Scientist: A Proper Verdict," in his *Teleology, First Principles, and Substance: Essays on Aristotle's Biology*, forthcoming (Oxford: Oxford University Press, 2007). David Lindberg, *The Beginnings of Western Science* (Chicago: University of Chicago Press, 1992), pp. 62-68.
47. Allan Gotthelf, "Darwin on Aristotle," *Journal of the History of Biology*, 1999, pp. 3-30.
48. Ernst Mayr, *The Growth of Biological Thought* (Cambridge: Harvard University Press, 1982), pp. 87-90. Sir David Ross, *Aristotle* (New York: Routledge, 1995), pp. XIV, 117-131. John Herman Randall, *Aristotle* (New York: Columbia University Press, 1960), pp. 145-148, 165-167, 219-242.
49. David Lindberg, *The Beginnings of Western Science* (Chicago: University of Chicago Press, 1992), pp. 62-68. Jonathan Barnes, *Aristotle* (Oxford: Oxford University Press, 1982), pp. 8-13.
50. Quoted in Edward Grant, *God and Reason in the Middle Ages* (Cambridge: Cambridge University Press, 2001), pp. 306-307.
51. Galileo Galilei, *Dialogue Concerning the Two Chief World Systems—Ptolemaic and Copernican*, translated by Stillman Drake (Berkeley: University of California Press, 1967), pp. 110-111. Edward Grant, *God and Reason in the Middle Ages* (Cambridge: Cambridge University Press, 2001), pp. 304-312. Richard Rubenstein, *Aristotle's Children: How Christians, Muslims and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (New York: Harcourt, Inc., 2003), pp. 6-11.