The Psychology of Shakespearean Biography

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“W what difference does it make who wrote the works of Shakespeare?”
“There is no question whatsoever who wrote Shakespeare.”
“Shakespeare wrote Shakespeare!”
“We know more about the life of Shakespeare than we do about the lives of most other authors of that era.”
“Only the lunatic fringe questions who Shakespeare was.”

This is a small but representative sample of the reactions one encounters if one raises questions about who wrote Shakespeare. Why? I propose to examine this question. I would like to bring a psychoanalytic perspective to bear on the widespread intolerance for asking reasonable questions about who Shakespeare was. Such a perspective is uniquely helpful in taking a step back from this bitter controversy, and looking for underlying disavowed dynamics. The few psychoanalysts who have closely explored Freud’s belief that Shakespeare was a pseudonym used by Edward de Vere (1550-1604) have indeed used a psychoanalytic approach — but in order to diagnose the “psychopathology” that led Freud into this supposedly embarrassing error.

During the years since Freud’s death, however, the evidence supporting his hypothesis has become impossible to ignore.¹

Orthodox reactions to an ultimately successful challenge of a cherished paradigm often pass through three stages: (1) “That’s absurd!”; (2) “What difference would it make?”; and finally, (3) “Of course — I always said that!”² We don’t assume that saying “Mark Twain wrote Mark Twain” eliminates the role of Samuel Clemens in those works. No one has found a single piece of evidence from Shakespeare’s lifetime that proves conclusively that anyone thought he was a writer. Contemporary references to the name were in all likelihood references to the pseudonym that began appearing in 1593. What we know about the traditional Shakespeare from the historical record shows no connections with a literary career. The *ad hominem* attacks on anyone who challenges traditional beliefs about who wrote Shakespeare, rooted in
a long history of abuse, have grown more vicious, more frequent, and more desperate as the traditional authorship case collapses. Once we become better acquainted with the weakness of orthodox evidence, these ad hominem attacks become more understandable.

Literary studies lack a methodology that offers reliability and validity in assessing evidence for authorship. Further, scholars who have staked their careers and reputations on traditional authorship beliefs are bound to encounter severe cognitive dissonance when they try to weigh contrary evidence objectively. As a result, power, authority, and personal influence all play prominent roles in public positions on authorship on the part of Shakespeare scholars who have academic careers. Winning a Ph.D. in English; being hired, published, promoted, and respected by one’s peers may all be jeopardized by expressing “heretical” opinions on authorship. Ironically, Keats famously said “Shakespeare possessed so enormously... Negative Capability, that is when man is capable of being in uncertainties, Mysteries, doubts, without any irritable reaching after fact & reason.” Yet most scholars show little capacity to tolerate doubt as to authorship.

I believe there are many sources of the skepticism, apathy, and even hostility that face those who question the Shakespeare experts who espouse the traditional authorship theory. We trust experts, and we should—usually. We assume science, when compared to literary studies, possesses a more reliable methodology for evaluating new theories. But recall that Alfred Wegener had accumulated overwhelming evidence for his theory of continental drift by 1915. He was a mere geographer, though, not a geologist. Geologists, the specialists in that field, argued that there was no known conceivable explanation of how continental drift could have occurred, so they ridiculed Wegener’s theory. But, by the mid-1960s, new information about plate techtonics provided the missing pieces of explanatory theory, and geologists now fully accept Wegener’s brilliant and well documented 1915 proposal.

The situation is analogous when it comes to de Vere as Shakespeare. We have abundant evidence that he was regarded by his contemporaries as the best of the Elizabethan courtier poets; that a few of his contemporaries knew he wrote anonymously; that he sponsored theatrical companies most of his life; and that he was regarded as one of the best Elizabethan authors of comedies. There are hundreds of connections between the content of the plays and poems of Shakespeare and the documented facts of de Vere’s life. But, we still do not know with certainty why he wrote under a pseudonym. This crucial but missing piece of evidence is a major reason de Vere is not yet more widely accepted as Shakespeare.

In all likelihood, there were multiple internal and external reasons for his using a pseudonym. Many books published in 16th century England did not include the author’s name. They were published anonymously, or with a pseudonym. Among the possible reasons for this tradition was the controversial nature of the contents of many books. Many authors in the era were punished for offending those in power. Even Ben Jonson was tortured for one of his plays. Most Elizabethan nobility did not publish poetry under their names during their lifetimes. The world of the theater
was held in some disrepute. De Vere/Shakespeare’s history plays put the Tudor monarchs in the best possible light; their propaganda value may have been enhanced by attributing them to a commoner. In addition, my study of the psychology of pseudonymity offers many examples of writers whose creativity seemed to flourish when their authorship was concealed. If de Vere used one pseudonym, he probably disguised other writings as well. For example, I have recently published articles attributing two anonymous 1585 poems to de Vere/Shakespeare.  

Neal Ascherson writes that, in the introduction to his biography of George Orwell, Bernard Crick complained that ‘most biographies were just dressed-up historical novels. They drafted a nicely shaped psychological plot for their subjects, and then—whenever the subject failed to follow that plot—twisted or invented the evidence... Catherine Carswell wrote a brave... biography... that was open about [Robert] Burns’s indiscriminate sexual energy and his bawdy verse, and was rewarded with death threats.’

Even reputable Shakespeare scholars such as Stephen Greenblatt have begun blurring the distinction between the known facts and speculative conjectures about the life of the alleged author. For example, Greenblatt writes misleadingly that the dedications of the long poems (Venus and Adonis and The Rape of Lucrece) “are the only such documents from Shakespeare’s hand.” A trusting reader might falsely assume Greenblatt means “in Shakespeare’s handwriting.” There has been no new evidence linking “Hand D” in one manuscript page of the play Sir Thomas More with Shakespeare. Nevertheless, the Royal Shakespeare Company 2007 edition of the complete plays of Shakespeare now makes the unsupported claim that this page is in Shakespeare’s handwriting (not that it “might be”). The claim is speculative, because the only samples we have that may possibly be in his handwriting are six signatures—but even the highly respected Shakespeare scholar Samuel Schoenbaum eventually admitted that each signature is different, and each even used different spelling. So it cannot be known with certainty that any of these signatures is genuine, much less that the manuscript in question is in Shakespeare’s handwriting. (In fact, some of its spelling idiosyncracies are consistent with those of de Vere’s letters.)

I would like to offer a brief, highly selective overview of the history of assumptions as to the authorship of Shakespeare’s works. This history is not well known, but it is essential in understanding the psychology of “orthodox” reactions when their authorship beliefs are questioned. I will highlight those aspects of this history that are most problematic in confusing our search for the actual author of the works. Psychoanalysts have, with Freud, been deeply interested in Shakespeare’s works. Coleridge, in fact, coined the word “psychoanalytical” to describe the richness of character in Shakespeare’s works.

Since many critics consider the Sonnets to be the most autobiographical of Shakespeare’s works, it is instructive to ponder their fate. Only 13 copies of the first 1609 edition survive. They weren’t published again until 1640, when John Benson published a tellingly mutilated version of them. Most significantly, he changed gendered pronouns to transform most of the 126 homosexual love poems into heterosexual love poems. Eight of these he omitted completely, including a
current favorite ("Shall I compare thee to a summer’s day?"). It is often argued rather unpersuasively that only friendship is meant in the first 126 Sonnets. Why, then, did Benson have to change the gender and leave out eight of the best Sonnets? Benson, in 1640, surely knew more about how the original versions of these poems would be interpreted than do scholars today who claim they have no erotic content. Benson came close to consigning eight Sonnets to oblivion. It was only in 1780 that Malone restored the Sonnets to their original wording; he stated explicitly that 120 of them [sic] were addressed to a man.

There are few indications of any serious, widespread interest in knowing who wrote Shakespeare’s works during his lifetime, or during the next century. The first brief biographical sketches were written in the early 18th century, starting with that by John Aubrey, then Nicholas Rowe. But a century had passed, so there were few reliable eye-witness accounts available to biographers. What they recorded instead were “legends” about Shakespeare, that were often accepted into the biographical record, with little evidence to attest their veracity. Most significantly, no one ever thought it necessary to present evidence that the plays and poems were in fact written by the traditional author. This never-proven assumption continues up to the present day, creating massive circularity. For example, it is assumed that Shakespeare from Stratford was the author, therefore it is assumed (without any real evidence) that he must have attended the Stratford grammar school (but literacy was an entrance requirement, and his parents were illiterate).

The first major turning point in popular interest in Shakespeare was in 1769. It is helpful to recall the context of that period in English intellectual history. By then, the Enlightenment had dealt a mortal blow to intellectuals’ traditional religious beliefs, leaving something of a void. Enter David Garrick, the most prominent Shakespeare actor of the 18th century. He fostered a cult of personality, skillfully linking himself with Shakespeare the man, raising the public profile of both Shakespeare and Garrick. He commissioned paintings, medallions, and etchings that placed his likeness with Shakespeare’s. Garrick brought the apotheosis of Shakespeare to a climax by holding the first Stratford "Jubilee" in 1769. This event succeeded in putting Stratford on the map as a sort of secular pilgrimage site (and ever since, with its 4 million annual tourists, its vast economic self-interest in maintaining the traditional authorship theory cannot be ignored).

Garrick was equally successful in enlarging and perpetuating the assumption that the son of Stratford was the author of Shakespeare’s works. Prior to 1769, Shakespeare was associated primarily with London, rather than with Stratford. The new fascination with Shakespeare’s alleged birthplace captured the emerging interest in Shakespeare the person. Previously, popular sentiment seemed to be an earlier version of the current “What difference would it make who wrote the works of Shakespeare?”

It was only after 1769 that there was serious, widespread interest in reconstructing Shakespeare’s biography. Due to the paucity of biographical documentation, very little was known about Shakespeare of Stratford, and nothing proved that he was considered a writer by his contemporaries.” But the hunt was on
to find relevant biographical information. Now, there was an explosion of interest in the author, and a deep hunger for facts about Shakespeare that would illuminate his literary works. Biography in general flourished in the 19th century.

I do not exaggerate when I refer to the “apotheosis” of Shakespeare. As Christian Deelman writes, “The importance of the Jubilee in the history of Shakespeare’s reputation can hardly be exaggerated. It marks the point at which Shakespeare stopped being regarded as an increasingly popular and admirable dramatist, and became a god.”

There is substantial reason to believe this impulse towards divination is one of the most crucial dimensions of the psychology of traditional belief in Shakespeare. George Romney’s 1789 painting, “The Infant Shakespeare, Surrounded by Nature and the Passions” powerfully illustrates this phenomenon. It was painted twenty years after Garrick’s Stratford Jubilee. It is obviously modeled on the nativity of Jesus, with the infant Shakespeare taking the place of the baby Jesus. It was surely not because of its aesthetic merits that Henry Folger paid six times more for this painting than for any other work of art in his collection (the largest collection of Shakespearean art in the world). He undoubtedly sensed a much more psychological or spiritual, rather than artistic appeal in this painting.

What does this apotheosis of Shakespeare have to do with the issue of authorship? Everything. It conveys a subtle implication that Shakespeare’s works
are like the Bible, making Shakespeare a sort of secular deity. We often speak of “the Bible and Shakespeare” as the greatest works of our literature. We are usually unaware, though, that we treat Shakespeare’s works as equivalent to the Bible in many ways. They are a secular Bible, for anyone skeptical about the theological status of our traditional Bible. The thousands of Biblical echoes in the words, phrases, and ideas in Shakespeare’s works deepen this link. Well, who wrote the Bible? Traditionally, God inspired it. Human beings only wrote it down, but believers maintain that God is the true author.

If God wrote the Bible, it is a waste of time to quibble over which human beings took His dictation. Similarly, Shakespeare of Stratford serves so perfectly in the role of author of Shakespeare’s works because he had to be divinely inspired. Romney’s “nativity” painting of Shakespeare embodies 18th century belief that Shakespeare proved genius stems from Nature, not from Nurture.

When thoughtful people became alarmed by finding no facts about Shakespeare’s life that had any connection with his literary works, they were told they simply did not understand the nature of artistic genius. A real genius, they were informed, uses his imagination, not irrelevant life experiences. He is inspired by his creative imagination, just as the scribes who wrote down the Word of God were merely taking divinely inspired dictation. Traditional religious belief, including in the Bible as the inspired Word of God, subliminally paved the way for acceptance of Shakespeare as a secular, surrogate deity. The loss of traditional religious beliefs helped to clinch the deal. And “heretics” are still persecuted by those in power.

Since 1769 there was an increasingly desperate thirst to learn more about the “divine” Shakespeare. When each well that was dug proved to be dry, along came W.H. Ireland. In 1795, he showed to scholars a treasure trove of Shakespeare letters and other documents. Boswell was so moved that he kneeled before them. The Poet Laureate and other luminaries signed a “Certificate of Belief” attesting to the authenticity of these documents. They must have felt crushed when Ireland admitted a year later that he had forged everything.

In 1831, John Payne Collier said of Shakespeare, “the first observation that must be made is, that so few facts are extant regarding him.” Collier soon rectified this embarrassing lack. In 1835, he published his electrifying discovery of previously unknown primary documents concerning Shakespeare. During the ensuing 20 years, he continued finding more and more documents that provided precisely the previously missing information about Shakespeare as a literary person. Collier’s discoveries catapulted his reputation to the highest echelon of Shakespeare scholars.

Just when Shakespeare’s status was finally being established securely, the claim of the man from Stratford suddenly and nearly disastrously collapsed. Collier, like Ireland, was found to have forged all the documents he claimed to have discovered. In retrospect, one can hardly blame either Collier or Ireland. Although ambitious and dishonest, they were also filling a deep need in admirers of Shakespeare to have some relics they could revere.
All these forgeries seem in fact to have gained an undeserved form of immortality, in still contributing to the widespread but mistaken belief that we have unquestioned documentation of who Shakespeare was. Like the century in which all editions of the Sonnets made them love poems to a woman, “evidence” that has since been discredited lives on, since it meets such powerful needs as to who we want Shakespeare to be. The Stratfordian Lynch states that “Some of the misinformation [Collier] introduced into his works in the 1830s continues to circulate in books and articles today. Lies, once they are accepted as true, take on a life of their own, one that lasts long after the original falsehoods have been exposed... It’s reasonable to assume that many of the ‘facts’ about Shakespeare and his age were not discovered but invented...It should give us pause any time we think our knowledge about Shakespeare is on firm ground.” Lynch stops short of reaching the conclusion I am proposing: that Shakespeare was not in fact the man from Stratford.

In 1857, as Collier’s forgeries were unraveling, Delia Bacon published the first book to challenge the man from Stratford as the author Shakespeare. Disillusionment over Ireland’s and then Collier’s false claims threatened to undermine traditional beliefs about authorship, repeating the loss of belief in God a century earlier. I suspect it made many open-minded intellectuals receptive to the first serious challenges to “orthodox” assumptions. Some of the most prominent authors of the 19th century became persuaded that, whoever he was, Shakespeare the author was not the man from Stratford. The list includes Walt Whitman, Henry James, and Mark Twain. Nathaniel Hawthorne wrote a preface to Bacon’s 1857 book and helped get it published. Challenges to orthodox authorship beliefs have only increased since Bacon’s book. Although Francis Bacon has not been accepted as Shakespeare, a new era in authorship scholarship blossomed. It was about 60 more years before someone first proposed Edward de Vere, Earl of Oxford, as Shakespeare, and his claim is increasingly accepted. The more that is learned about him, the more convincing his claim has become.

One of the 19th century’s foremost Shakespeare scholars was Sidney Lee. In his 1898 biography of Shakespeare, he discussed the forgeries by Collier and his predecessors — “The intense interest which Shakespeare’s life and work have long universally excited has tempted unprincipled or sportively mischievous writers from time to time to deceive the public by the forgery of documents purporting to supply new information. The forgers were especially active at the end of the [18th] century and during the middle years of the [19th] century.”

Note the words “sportively mischievous.” Lee lets Collier off easy. Then, immediately after his summary of the Shakespeare forgeries, Lee turns to the authorship controversy. Lee helped begin the lively and continuing tradition of ad hominem in lieu of substantive, ad rem counterarguments. He was writing at a time when he had to argue against Bacon as the only other alleged author of Shakespeare’s works. But the tone of Lee’s arguments set the precedent that has been followed ever since in attacking subsequent “heresies.” His four pages on the topic begin by referring to the “fantastic theory” that Shakespeare’s works were not written by Shakespeare. He calls such a theory “perversion.” He also calls theories that question
traditional authorship “strange,” “unintelligible,” “arbitrary and baseless,” and argues that they have “no rational right to a hearing,” continuing in the next paragraph, “Miss Delia Bacon, who was the first to spread abroad a spirit of skepticism respecting the established facts [sic] of Shakespeare’s career, died insane.” Notice the insinuation that heretics who dare question the “facts” may be insane. Perhaps Lee’s invective stems from the defensiveness of orthodox Shakespeare scholars; having been taken in by Ireland’s and Collier’s forgeries for decades had weakened their credibility, and planted seeds of doubt among the general public. The rage of Shakespeare scholars toward the forgers continues to be displaced onto authorship skeptics.

Lee was one of the first Shakespeare scholars to argue we should dissociate the author’s life experiences from his literary works. Given a complete lack of fit between the traditional author’s life and the works, Lee suggested we should not expect to find any such correspondence — “it is dangerous to read into Shakespeare’s dramatic utterances allusions to his personal experience.” ... “to assume that he wrote...from practical experience... is to underrate his intuitive power of realising life under almost every aspect by force of his imagination” (Lee’s emphasis). Lee noted the striking financial success of the man from Stratford. That fact has at least indirectly contributed to the assumption that he was the author—Max Weber famously observed that we often regard financial success as a sign that one was divinely favored.  

Augustus Ralli, in his history of Shakespearean criticism until 1925, summarizes Lee’s thesis that Shakespeare did not write from personal experience: “There is no tangible evidence that Shakespeare’s tragic period had a personal cause... The external facts of his life show unbroken progress of prosperity... To seek in mere personal experience the key to his conquest of the topmost peaks of tragedy is to underrate his creative faculty and disparage the force of its magic [sic]... Shakespeare’s dramatic work is impersonal, and does not show his idiosyncrasies... [There is] no self-evident revelation of personal experiences of emotion or passion [my emphasis].”

Ralli tentatively voices his reservations about Lee’s categorical rejection of Shakespeare’s personal experiences as influencing his creative works — “[Lee] has been beguiled by his own phrases... it seems to us that he pondered the subject till his subconscious mind gathered force and supplied the best words for one solution, so that he became self-convincing and slightly overstated what after all belongs to conjecture.” One of the most shocking aspects of Lee’s position is that it represented a complete reversal from his earlier opinions, at least concerning the Sonnets. Initially, Lee held that “In [all but two of] the Sonnets Shakespeare avows... the experiences of his own heart.” A few months later, Lee now said the Sonnets only created “the illusion of personal confession.” I would speculate homophobia played a role in Lee’s reversal — to read the Sonnets as autobiography confronts the objective reader with unavoidable evidence of the poet’s bisexuality.

An anonymous author wrote in 1909, in reviewing a book that challenged the traditional authorship assumption, “Let us frankly admit that there are puzzles
in regard to Shakespeare's classical attainments, his knowledge of travel, and his knowledge of law. The biographers of Shakespeare without a doubt have been at fault here. Let us suppose for the sake of argument that there are one thousand ascertainable facts about Shakespeare. Of these Rowe, in 1709, discovered ten, of which seven have since been found to be more or less erroneous. The biographers of today are in possession, let us say, of about forty, and on the strength of these and their own ingenuity they presume to answer every conceivable puzzle that confronts the observer of the dramatist's career.... It makes us forget those very simple words that ought so often to be on our lips, 'We don't know.' The ingenuity of the biographers is pleasing and even plausible, but its projections are like the Shakespeare portraits — no two are alike and the latest word of the last expert is that they are all fabrications, not to say impostures [reviewer's emphasis]."

The prominent role "legend" plays in Shakespeare biographies is revealing. Most strikingly, the foremost 20th century Shakespeare biographer, Samuel Schoenbaum, was dismissive of anyone who introduced what he considered to be excessive speculation in their studies of Shakespeare's life. "[My] book... differs from most of the innumerable popular biographies of Shakespeare that augment the facts with speculation [my emphasis]." It is surely no coincidence that the recent proliferation of new, highly speculative biographies of Shakespeare have appeared since Schoenbaum's death.

Nevertheless, Schoenbaum justified his inclusion of legends in Shakespeare's story: "Much of this [legendary and apocryphal] material is quite simply good fun, but the workings of myth have a place in the historical record, and may sometimes conceal elusive germs of truth." He actually once used the phrase "was indeed probably," a testament to his struggle to believe the unproven. Schoenbaum divided legends into plausible and implausible categories. He made this judgment based on his circular assumption that Shakespeare the author was Shakespeare of Stratford.

In the process, he rejected a wonderful story that gains in plausibility if one exercises skepticism as to the traditional theory of authorship. During a performance before Queen Elizabeth, the Queen was so determined to get "Shakespeare's" attention that she walked up to him on stage, dropped her glove, and blocked his path. He picked up her glove and returned it to her, while improvising two lines of iambic pentameter — "And though now bent on this embassy, / Yet stop we to take up our Cousin's glove!" Schoenbaum argues against the veracity of this legend by claiming that "the Queen is not known to have professed admiration for Shakespeare ... and she restrained herself publicly (as in private) from flirtations with subjects of inferior station." Alternatively, we can hypothesize the story is accurate, then reach a different conclusion about Shakespeare's social class.

I assume that "Shakespeare" was de Vere's stage name when his plays were performed at court. My surmise is consistent with current scholarly opinion that Shakespeare stopped acting after 1603. The 1825 record which Schoenbaum quotes for his anecdote stated, "It is well known that Queen Elizabeth was a great admirer of the immortal Shakspeare." The historical record leaves no doubt that she was in fact a great admirer of de Vere — they may have had an affair, for which
Elizabeth was rebuked in a letter from her sister. The Queen loved the perfumed gloves de Vere gave her when he returned from Italy — “She took such pleasure in these gloves that she was pictured with them upon her hands, and for many years afterwards it was called the ‘Earl of Oxford’s perfume’.” Ben Jonson’s collected works of 1616 list “William Shake-speare” as one of the principal actors in some of Jonson’s plays when they were first performed at court, but only before 1604, the year of de Vere’s death.

Schoenbaum was merciless in his ad hominem denigration of anyone who questions the traditional author. One of his milder attacks was on the “pattern of psychopathology” with “paranoid structures of thought” that he discovered in “recurring features of anti-Stratfordian behavior.” He also invoked the language of religious dogma in calling us “heretics” and “schismatics.” Is he protesting a bit too much?

So, what difference does it make who wrote the works of Shakespeare? A world of difference. Shakespeare scholarship has been marred by a series of blind spots. One can trace these blind spots over the centuries of Shakespeare criticism. The myth that nature alone, not education, produced his genius has led to a systematic devaluation of the extent of his scholarship and of the many books in several languages that influenced his works. Lee spoke for many Shakespeare scholars in discouraging us from looking for any links between the literary works and the author’s life experiences. The Sonnets, especially, have elicited impassioned denials of any autobiographical connections. Respected literary scholars have denied that there is any connection between the plays and contemporary political events; that the Bible influenced his works; that he could read Italian or ancient Greek; or that he could have read widely at all. All these assumptions have been shown to be false. Gillespie recently published a 500-page supplement to past scholarship on Shakespeare’s literary sources. Scholars can no longer deny Shakespeare’s truly phenomenal erudition. It is now accepted that he read several foreign languages, and engaged in astonishingly nuanced debates on scholarly controversies in theology, literary theory, medicine, history, astronomy, and other subjects. In de Vere’s Geneva Bible, he crossed out one word and substituted the translation of the Latin Vulgate Bible. His eminent childhood tutors were amazed by his intellect. The depth and complexity of his plays increases exponentially when we can link them with the author’s life.16

Sadly, the need to ignore the person who wrote the works has lessened scholarly interest in Shakespeare’s poetry, which was more popular during his lifetime than were his plays. His long poems outsold the early editions of his plays. The pseudonym “Shakespeare” appeared in print for the first time as the author of Venus and Adonis in 1593. Stritmatter has persuasively argued that this poem is a thinly disguised account of de Vere’s affair with Queen Elizabeth.17 It is therefore understandable that he did not publish it under his own name.

I hope I have succeeded in giving a sample of the systematic distortions that unquestioned traditional authorship assumptions have introduced into our understanding of Shakespeare and his works. It may be “painful,” as Freud experienced, to relinquish the comfort of our long-held assumptions about who
Shakespeare was. But tolerating the disruptions of this paradigm shift is well worth it. I believe there will be a renaissance in Shakespeare studies as we deal with the authorship question more objectively. Psychoanalysts who love Shakespeare, and love the pursuit of the truth, have a crucial role to play in this renaissance.

Endnotes


2 For a more philosophical treatment of the stages by which one paradigm is replaced by another under the circumstances of “revolutionary science,” see T. S. Kuhn’s classic *Structure of Scientific Revolutions* (Chicago: Univ. of Chicago Press, 1962).


15 Shapiro, James, personal communication, May 10, 2008. When I learned Shapiro was writing a book about the authorship controversy, I attempted a few months later to share some of my discoveries with him. He replied that it is his policy to read nothing that anyone sends to him on this matter.

