

APPLES TO ORANGES IN BARD STYLOMETRICS

Elliott & Valenza fail to eliminate Oxford

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NINE years ago, professors Ward E.Y. Elliott and Robert J. Valenza published an article in *THE OXFORDIAN* titled “Can the Oxfordian Candidacy be Saved?” Their article reported negative results for stylometric tests comparing the known verse of Edward de Vere with verse in the Shakespeare canon. In 2001, the first author of this article published a critique of their article in a letter to the editor of *THE OXFORDIAN*. Two years later Elliott responded with his own letter to the editor.

More recently, Elliott and Valenza revisited and updated their stylometric findings in a comprehensive article in *The Tennessee Law Review*, issued in the spring of 2005. That article—“Oxford by the Numbers: What Are the Odds that the Earl of Oxford Could Have Written Shakespeare’s Poems and Plays?”—presents additional statistical results and interpretations purporting to eliminate the Earl of Oxford, the leading alternative candidate.

The present article critiques the inputs used and conclusions reached by Elliott and Valenza in their stylometric analysis of Oxford’s known verse as reported in their law review article. We argue that their Oxford inputs were invalid for purposes of comparison with Shakespeare in three important respects: genre, time of composition, and scope of sample. In addition, Elliott and Valenza’s stated preference for so-called “silver bullet” differences between texts (said to “disprove” common authorship), exacerbates the problem of non-comparable inputs and biases the interpretation of their results. Differences based on apples-to-oranges comparisons, rather than disproving common authorship, are probably not meaningful at all. Due to these fundamental flaws in their study design, the conclusion that Oxford can be eliminated is unwarranted.

Elliott and Valenza’s study

In an effort to resolve the question of “Shakespeare’s” identity, the Claremont Shakespeare Authorship Clinic at Claremont McKenna College compared text from Shakespeare’s plays and poems to text from other claimants proposed as the true author of the canon. Successive teams of undergraduates ran the clinic from 1987 to 1994. Ward E.Y. Elliott, Professor of American Political Institutions, and Robert J. Valenza, Professor of Mathematics and the Humanities, served as faculty advisors. Elliott and Valenza have carried on the Authorship Clinic’s work more or less continuously ever since, publishing articles in such publications as *Computers and the Humanities*,

Literary and Linguistic Computing, *The Shakespeare Quarterly*, and *Notes and Queries*, in addition to THE OXFORDIAN.

To compare Oxford's verse to Shakespeare's, the Shakespeare Clinic used fifteen of thirty-eight stylometric tests in their repertoire. The inputs for Oxford were sixteen lyric "poems"—half of them actually songs—judged by Steven W. May, Professor Emeritus of English at Georgetown College, to be by Oxford, and thus "canonical" (*Poets* 370). According to Elliott and Valenza, Oxford's verse "failed" seven tests, including modal distance, grade level, relative clauses, lines with feminine endings, enclitic microphrases, proclitic microphrases and bundles of badges (*TLR* 370-6). They estimated that "the odds that Shakespeare could have produced Oxford's test patterns by chance are between 400,000 and 1.5 quadrillion times worse" than the odds for Shakespeare's own most discrepant block (370-1). Although Oxford's verse "passed" eight of the fifteen tests, Elliott and Valenza said that they regard "silver bullet" differences as more significant than similarities "by many orders of magnitude" (337). In a summary, they wrote:

Our internal-evidence, stylometric tests provide no support for Oxford. In terms of quantifiable stylistic attributes, Oxford's verse and Shakespeare's verse are light years apart. The odds that either could have written the other's work are much lower than the odds of getting hit by lightning. (323)

The Genre Problem

Although Elliott and Valenza refer to all of their inputs for Oxford as poems, his sixteen known works are really a mix of songs and poems in a variety of forms. Yet they combined them all in a single sample which they then compared to blocks of Shakespeare's narrative and lyric poetry, and even to dramatic verse from the plays. They did no comparisons of lyric poetry to lyric poetry, or songs to songs. Although they are aware of the genre issue, noting in their law review article that, of Oxford's eight works in *The Paradise of Dainty Devices*, "any or all could be song lyrics, not poems proper, and, hence, not suitable for comparison with poems," they went ahead and compared them anyway (392).

We can be certain that at least half of Oxford's sixteen known "poems" are songs because they first appeared in *The Paradise of Dainty Devices*, an anthology of songs collected by Richard Edwards before he died in 1566, but not published until 1576. Henry Disle, the printer who published them, described them in his introductory epistle as "ditties . . . made to be set to any song in 5 parts or sung to instrument" (Disle qtd. in Rollins 3-4).

Thus, although half the inputs for Oxford are songs, Elliott and Valenza never compared them to any from the fairly large collection of known Shakespeare songs. In addition, Oxford's eight poems were never compared separately to Shakespeare's poems, but only to a mixed group of verse and songs. Elliott and Valenza even included some songs in a comparison of "Oxford's iambic pentameter verse only" to Shakespeare's verse (370). As should be obvious, song lyrics are written to different standards than spoken verses and should be regarded as a totally separate

genre. By combining Oxford's poems and songs, Elliott and Valenza confounded any relationship between his and Shakespeare's poetry. This alone calls into question the validity of their conclusions. Who can say whether the statistical differences they found were due to different authors, or to the differences in genre?

The genre problem might be addressed in a re-analysis of their data, but other problems are such that this alone could not salvage their results.

The dating problem

The second problem has to do with the dates of composition of Oxford's known works. No one knows for sure when he wrote the sixteen works that Elliott and Valenza used as inputs; but they were not—as Elliott and Valenza have assumed—all written between the ages of twenty-two and forty-four (323, 394). As Oxfordian scholar Nina Green has noted, Oxford must have written the eight songs in *The Paradise of Dainty Devices* before age sixteen, because, although the anthology was not printed until 1576, the printer Henry Disle stated in his prefatory epistle that Richard Edwards had collected its contents before he died in 1566, the year Oxford turned sixteen (Green website). Hyder Rollins of Harvard, the modern-day editor of the anthology, agrees: "Indeed, if Edwards collected the poems—and Disle plainly says that he did—then *all of them must have been written by 1566*" (lix, emphasis added).

In another article in the same issue of the *Tennessee Law Review*, Professor May argues that Oxford must have written the eight songs *after* Edwards's death in 1566, because they are (in his terms) the kind of "jaded love complaints" that no teenager could have written (231). However, he gives no examples, no reasons why Disle's testimony should be discarded, nor has he described them this way in earlier writings on the subject. Green finds his judgment highly questionable, pointing out that two of the songs do not deal with love at all, while none of the other six contains sentiments that would merit the epithet "jaded." We agree with Green that May's opinion on this point is far too subjective to take seriously. May also notes that one of the other songs in the anthology (not by Oxford) was sung before the Queen in 1574, as if to imply that it, and all of the other songs, including Oxford's, may have been written as late as 1574; but this performance cannot be used to date its composition and in no way precludes a pre-1566 composition for any of the songs. May also finds the texts of the eight songs to be "fairly corrupt," suggesting that the printer got them "second-hand rather than from court circles tapped by Edwards" before he died (*TLR* 231), another opinion too speculative to take seriously. Rollins does not describe Oxford's poems as corrupt, nor would it necessarily follow that they could not have been written by 1566 even if they were. May offers no basis for his assumption that manuscripts circulating at Court pre-1566 would necessarily have been error-free. In sum, the printer clearly states that Edwards collected the eight songs before he died in 1566, the respected Shakespearean scholar Hyder Rollins agrees, and so far there is no evidence to contradict them.

Of Oxford's eight remaining poems, one, "The labouring man that tills the fertile soil," is found in his preface to Thomas Bedingfield's 1573 translation of *Cardanus Comforte*. Oxford

was twenty-one when Bedingfield sent him his manuscript with a cover letter dated January 1, 1572; it was published the following year. May writes in his law review article that Oxford's poem is "dated January 1, 1572" (231), but in fact the poem is undated. Nor does anything in Oxford's 26-line poem suggest that he wrote it specifically for the Bedingfield book. The poem says nothing about Cardan, or the subject of the book, or Bedingfield's translation. Oxford could easily have written this short poem on the subject of the rewards of reading versus the toil of writing long before he received Bedingfield's manuscript.

The dates of composition of the remaining seven poems are very problematic. They turned up in print at various times in the 1580s and 1590s. Because of the variety of their styles and motifs, May regards them as "experimental," so he dates them to the 1570s when Oxford was in his twenties (*Poets* 270). Given May's assessment, and the lack of any firm anchors in time, these seven poems could as easily date to the early 1570s, or even the late 1560s. This is supported by Elliott and Valenza's finding that there were "no signs of testable stylistic change" among Oxford's sixteen works. They claim this shows that Oxford's style did not change between the ages of twenty-two and forty-four (*TLR* 394). A more likely explanation is that their dates are wrong, and the sixteen songs and poems were all written during Oxford's youth.

In general, Elliott and Valenza assume that Oxford wrote all sixteen published works in the year of first publication, or at most two or three years earlier, hence between the ages of twenty-two and forty-four. This assumption is not supported by the evidence, and it contradicts what is known about the practices of Elizabethan aristocratic poets. They circulated manuscript copies privately among relatives and friends. If they published at all, it was usually years or decades later (Meres 194; May *Poets* 59, 67-8, 270). Elliott and Valenza take no notice of this well-known phenomenon, and they cite no authority to the contrary.

In sum, there is no valid basis for Elliott and Valenza to assume that Oxford wrote all of his songs and lyric poems between the ages of twenty-two and forty-four. The evidence says that he wrote the eight songs by age sixteen, the short poem in *Cardanus Comforte* by age twenty-one, or twenty-two at the latest, and the other seven sometime in his twenties, per Steven May's assessment. Considering the experimental nature of their styles, it is possible that he wrote all sixteen of them

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during his teenage years. By contrast, it was not until 1593, when Oxford was forty-three, that the first published work to be associated with the name “William Shakespeare” appeared. How can Elliott and Valenza be so sure that Oxford’s early writing style did not develop into Shakespeare’s more mature style over a period of two decades, or longer? Such development would not require a sudden, massive, incredible “grub-to-butterfly” mid-life metamorphosis, as they choose to characterize it (390-6). Only if one assumes that Oxford’s latest poems in his own name were written in his forties—an unwarranted assumption—would a “grub-to-butterfly” metamorphosis be required.

The sampling problem

The third problem with the nature of the clinic’s input is whether the sixteen works are a representative, and thus valid, sample of Oxford’s writings. They total 3,042 words, which Elliott and Valenza sometimes call “a comparison sample” and sometimes “the whole corpus” (347, 372, 373, 376). In fact, they are neither a genuine “sample” of some larger body of work, nor “the whole corpus.” They are the handful of works (among a large pool of anonymous or questionably attributed works from the period) that a single scholar, Steven May, considers to be definitely by Oxford rather than by someone else (*Poets* 270). May himself acknowledges that:

In all likelihood these sixteen . . . poems amount to *no more than a good sampling* of de Vere’s total output in light of the contemporary praise of his writing. Both Webbe (1586) and Puttenham (1589) rank him first among the courtier poets, an eminence he probably would not have been granted, despite his reputation as a patron, by virtue of a mere handful of lyrics. (*Oxford* 12, emphasis added).

In treating Oxford’s known verse as representative, Elliott and Valenza ignored this caveat. Yet May’s caveat recognizes an important factor in this debate. Several of Oxford’s contemporaries praised him as an accomplished, prolific poet and playwright. In 1578, Gabriel Harvey in an address in Latin praised Oxford, then twenty-eight, saying “witness how greatly thou dost excel in letters. I have seen many Latin verses of thine, yea, even more of English” (Ward 65-6). In his 1596 *Discourse of English Poetry*, William Webbe described Oxford as “the most excellent” of the courtier poets (243). In *The Arte of English Poesie* (1589) George Puttenham wrote: “I know very many notable gentlemen in the Court that have written commendably, and suppressed it again, or else suffered it to be published without their own names on it, as if it were a discredit for a gentleman to seem learned.” Later he was more specific, writing that many courtiers have “written excellently well as it would appear if their doings could be found out and made public with the rest, of which number is first that noble gentleman, Edward Earl of Oxford” (61). Stratfordians attribute such praise to the flattery that was endemic in dealing with noble patrons, but by 1589 it would have been common knowledge in the writing community that Oxford was no longer financially able to provide support to aspiring writers.

The record also shows that Oxford was known for writing plays, or “comedies.” In 1598 in his

book *Wits Treasury*, Francis Meres rated him among “the best for comedy” (Chambers 2:194-5). None of his comedies is in Elliott and Valenza’s comparison sample because none survives (at least not under his own name). Long after he died, and so was not susceptible to flattery, Oxford’s reputation was still such that in 1622, Henry Peacham, in a chapter on poetry in his *Compleat Gentleman*, placed him first on a list of seven Elizabethan poets who, above others “honoured poesie with their pens and practice” (108). Not only did Elliott and Valenza not take such praise into account in their study, in their “case for Oxford,” they neglected even to mention it (325-7).

Such assessments by Oxford’s contemporaries constitute important evidence in support of his candidacy—evidence that distinguishes him from all other candidates. As May acknowledged in his earliest assessment of Oxford (from which it seems he has since backed away), it is unlikely that he would have received such praise based solely on the sixteen works in Elliott and Valenza’s sample. He must have written many more and, as he matured, much better works. The contrast between this praise and the works in their study should have alerted them to the likelihood that they were working with an incomplete, early, and probably very unrepresentative sample. After all, they did not claim to have found that Oxford was a good poet whose style just differed from Shakespeare’s. They denigrated Oxford as “a grub,” and “a grub all of his life.” (TLR 390-6). But Oxford was no “grub” to his contemporaries.

The validity of Elliott and Valenza’s Oxford writing sample was critical to their making a meaningful comparison. They should have considered this issue, and they should have addressed it in describing the selection of their Oxford sample—especially since it was mentioned by Steven May, their own authority. (This issue was raised by the first author of this article in his letter to the editor of THE OXFORDIAN (156), but Elliott chose to ignore it in his reply.)

Elliott and Valenza’s “clincher”

Near the end of their law review article, Elliott and Valenza lay out what they seem to consider clear anecdotal evidence that Shakespeare and Oxford must have been different writers:

If one wanted a “clincher,” . . . consider, for example, this passage from Oxford:

Help gods, help saints, help sprites and powers that in the heaven do dwell,
 Help ye that are to wail, ay wont, ye howling hounds of hell,
 Help man, help beasts, help birds and worms that on the earth doth toil,
 Help fish, help fowl that flocks and feeds upon the salt-sea soil,
 Help echo that in air doth flee, shrill voices to resound
 To wail this loss of my good name, as of these griefs the ground.

This they contrast with the following lines from *King Lear*, also on the subject of loss of good name:

Know my name is lost,
 By treason’s tooth bare-gnawn and canker-bit . . . (5.3.122-3)

—concluding:

How could anyone suppose that the two passages were written by the same person? . . . The styles seem to be worlds apart, with Shakespeare's manifestly more polished and mature. Shakespeare managed to capture in eleven tight, vivid lapidary words of iambic pentameter much the same thought that took the struggling young Oxford seventy-nine sprawling, repetitious, overwrought, ungrammatical words of rhyme royal to convey. (392-3)

Just because both passages deal with the same subject doesn't mean that other comparability issues can be ignored. The six lines of Oxford's verse are from one of his songs that appeared in *The Paradise of Dainty Devices*, published in 1576. The lines from *King Lear* are play verse, written in the voice of a character in one of Shakespeare's final plays, lines written a good thirty years later (TLR 453). Of course they are different.

As we have shown above, Oxford's eight songs were all written by age sixteen. The fact is that this very personal song perfectly reflects an incident in his fourteenth year in which his legitimacy was challenged by his half-sister and her husband, Lord Windsor (Ward 8). Threatened with being labeled a bastard, he had every reason to "wail the loss" of his "good name." So Elliott and Valenza's "clincher" compares a distressed teen's song verse to play verse written four decades later. Why should we expect a thirteen-year-old to write like a man in his fifties, or to write in a style that would not be in fashion for another thirty years?

Writing styles are not like fingerprints, where the difference between age thirteen and age fifty-three is irrelevant, but Elliott and Valenza seem to think so. They ridicule the suggestion that Oxford's early writing style could have developed into Shakespeare's mature style, terming it an idea "pulled from a hat," resting "not on any actual evidence on the record . . . but on a wholly conjectural and to us wildly improbable scenario" (394). The suggestion is neither "pulled from a hat" nor "wildly improbable." The praise of Oxford's works later in life is solid evidence—evidence *on the record*—that his style developed over time. The idea that literary genius develops over time is entirely consistent with other evidence on creativity and genius. See, for example, the chapter on "Development: Are Geniuses Born—or Made?" in Dean Keith Simonton's *Origins of Genius* (109-143). What is "pulled from a hat" is Elliott and Valenza's notion that the development over time of a genius's style is "wildly conjectural."

Missing the Point

In the same passage, Elliott and Valenza also accuse Oxfordians of claiming that "the very immaturity of Oxford's writing is evidence that Shakespeare therefore might have been Oxford after all, only grown up" (TLR 393-4). They accuse us of saying that "differences, no less than similarities, can help prove common authorship" (392). Some Oxfordian somewhere may hold this position—we do not. It grossly mischaracterizes our view, and, we feel, the views of most Oxfordians.

The first author of this article pointed this out in his letter to the editor of THE OXFORDIAN:

Elliott and Valenza also miss the point when they accuse Oxfordians of making the absurd argument that “differences, no less than similarities, can ‘prove’ common authorship,” . . . a charge which they repeat three times. The point is not that differences ‘prove’ common authorship but, rather, that differences do not necessarily *disprove* common authorship because of the possibility of development over time. . . . This is an argument against the validity of Elliott and Valenza’s conclusions (eliminating Oxford), not an affirmative argument for Oxford; but rather than admit its merits, they turn it into a ‘straw man’ anti-Oxfordian argument. (155)

In his reply, Elliott acknowledged the validity of this criticism, saying, “Shahan. . . properly corrected us . . . that developmental differences don’t prove common authorship, they just don’t necessarily disprove it . . .” (TOX 160). Yet even after this, Elliott and Valenza continued to mischaracterize the position of Oxfordians, even naming one of us in their law review article (394). Again, our position is not that differences “prove” common authorship but, rather, that the differences which Elliot and Valenza found *are not sufficient to disprove it*. They claim to have eliminated Oxford as a candidate—we claim their study design simply can’t support such a conclusion. The issues that we are raising are fairly straightforward questions of research design and the logic of interpretation. The reader should ask why, if their position is valid, they should find it necessary to ignore our criticisms and mischaracterize our views.

Silver bullets or fairy tales? The metaphor problem

Elliott and Valenza’s study design cannot rule out the possibility that any stylistic differences between Oxford’s youthful verse and Shakespeare’s mature verse, first published two decades later, could be entirely due to Oxford’s stage of development as a writer at the two different times. Limited by this study design, the appropriate course of action would have been to discount differences as possibly due to developmental factors, and look for similarities. Elliott and Valenza did the opposite. Here is how they describe what they did, and their rationale for doing so:

Fitting the tiny slipper does not prove you are Cinderella nearly as conclusively as not fitting the tiny slipper proves you are not Cinderella. . . . Hence, our distinguishing stock-in-trade has been “silver bullet” negative evidence that tends to disprove common authorship by showing differences, rather than “smoking gun” positive evidence used by most other analysts to prove common authorship with similarities . . . (337)

The test of a metaphor is the extent to which it holds up when looked at in the real world situation to which it is supposed to apply. The Cinderella metaphor fails the test. It assumes that both foot sizes and writing styles are immutable, neither of which is true. Suppose, for example, that

rather than a foot, we have a footprint, and the footprint is size four. Elliott and Valenza would have us conclude that the footprint cannot be Cinderella's because she wears a size-five slipper. But what if the footprint is from two years ago? It makes no difference to Elliott and Valenza; if the footprint is size four, it cannot be Cinderella's. In the real world, having size four footprints proves that you are not Cinderella only if her feet were always the same size, no matter what her age.

Elliott and Valenza want people to think that in their small sample of Oxford's youthful verse, they have measured Oxford's "foot," and it is not Shakespeare's shoe size. What they really have is something more analogous to a few very old, small artistic footprints—much smaller than Shakespeare's artistic shoe size would be two decades later. Given the design of their study, it is impossible for Elliott and Valenza to conclude, by any logical argument, that the writer who produced those few small "footprints" could not have grown, over two decades, into Shakespeare's "shoes."

"Silver bullet" negative evidence "disproves" common authorship only if alternative explanations can be ruled out. Any writer who lives to maturity will show stylistic differences between their juvenilia and their mature works, while a genius would be expected to show even greater differences. Comparing the juvenilia of a claimant to the mature works of Shakespeare, and labeling all observed differences "silver bullets" is absurd. It suggests that there is no alternative explanation, so the "bullet" must be on target, and the claimant could not have been Shakespeare. But different authors is *not* the only explanation. One author writing at two vastly different stages of stylistic development is an alternative that cannot be ruled out.

The Cinderella metaphor, rather than supporting an emphasis on differences, shows why it is inappropriate here. Just as tiny feet grow over time, writing styles develop over time. Emphasizing differences creates an illogical bias towards the rejection of any candidate for whom no contemporaneous sample exists. Labeling differences "silver bullets" and calling them their "stock-in-trade" is not a scientific rationale for such a bias. Fairy tale metaphors that do not correspond to reality are no substitute for rigorous thinking about what conclusions can, and cannot, be reached using writing samples that are not comparable in terms of genre, time of composition, or scope of sample.

An on-target metaphor

In his letter to the editor of THE OXFORDIAN, the first author of this article proposed the following as an appropriate metaphor for Elliott and Valenza's study:

Elliott and Valenza's avoidance of (the issue of non-comparable inputs due to an incomplete Oxford sample) reminds me of the fable of the drunk who stumbles out of a bar, can't find his keys, and starts looking for them under a street light. A man asks him what he is doing. "Looking for my car keys," he replies. "Did you lose them here?" the man asks. "I don't know where I lost them," he replies. "Then why are you looking for them here?" the man asks. "This is where the light is," the drunk replies.

Elliott and Valenza's comparison of non-comparable measures . . . is like looking under the street light because that is where the light is. They see nothing . . . and conclude that "there are no keys." Well, maybe there are keys, but they just don't happen to be where Elliott and Valenza can shine their light. (164)

Elliott and Valenza respond

If looking where the light is amounts to a sin, we and Alan Nelson and Steven May, along with the longstanding Oxford skeptics, Irvin Matus, Terry Ross, and David Kathman, are the greatest of sinners. Indeed, we are worse sinners than the others for using all that fancy night-vision gear so scorned by the lit-department technophobes. However, our tests do help you see where the light would otherwise be dim.

By the light of the documents, Shakespeare looks much more like the Stratford man than the Earl of Oxford. Oxford's poems do not scan like Shakespeare's nor sound like Shakespeare's. By the numbers, Oxford's poems are in a different galaxy from Shakespeare's, and they show no signs of testable stylistic change from his earliest poems at age twenty-two or earlier to his latest at age forty-four. (394)

This response in their law review article is remarkable in several respects. First, once again, Elliott and Valenza insist on mischaracterizing, or misperceiving, our point, however plainly stated. The implication of the metaphor is not that they should not have looked where the light was; rather, it is that they should have recognized the limitations imposed by where they could look, and where they could not look, on what they could *conclude*. One shouldn't conclude "there are no keys" just because they find no keys under the light. Similarly, one shouldn't conclude against common authorship when the writing samples are known to be less than comparable in time of composition, genre, and the scope and representativeness of the comparison samples. "Fancy night vision gear" does not let one see in total darkness. It provides tools to analyze what is in dim light, and it may improve our ability to extrapolate a little beyond. It cannot fill the void of a total lack of information, i.e. it can shed no light on the works that led Oxford's contemporaries to praise him as the greatest of Elizabethan poet-playwrights.

A valid test of Oxford's candidacy would have involved comparisons of contemporaneous samples of his writings, comparable to Shakespeare's in genre, and preferably drawn from a large, representative universe of known works. Elliott and Valenza were not blessed with such data, so they used what they had. They looked where the light was, i.e. they applied their measures to the few works available. We don't blame them for looking where they could see; but we do blame them for reaching a conclusion that is not warranted by what they could see. That is their "sin."

Second: the statement that "Oxford's poems are in a different galaxy from Shakespeare's" has no caveats whatever. They state the conclusion without qualification, as if their study design were flawless, with no comparability issues. Their odds are based on apples-to-oranges comparisons. It is futile to calculate the odds that an apple is an orange. In essence, Elliott and Valenza's response simply ignores the various issues we have raised, as if they did not exist; but they do exist, and so the reason why Oxford's extant verse would be "in a different galaxy" from Shakespeare's mature verse is not necessarily that Oxford was not Shakespeare. There is a very credible alternative explanation.

Third: the statement that "By the light of the documents, Shakespeare looks much more like the Stratford man than the Earl of Oxford" is very surprising. To what "documents" do they refer?

If to the writings they used in their study, no writings by the Stratford man are extant other than those attributed to Shakespeare, so there's nothing with which to compare them. Since there's nothing to compare, the statement cannot be based on their own stylometric work. Not knowing on what this opinion is based, we are left with much the same response as to the "different galaxy" statement. If it's not possible to compare apples with oranges, how is it possible to compare either apples, or oranges, with thin air?

Fourth: when challenged, Elliott and Valenza fall back on an appeal to authority, rather than offer an objective defense of their study. And with what group of authorities do they choose to be associated? Five prominent anti-Oxfordians, not one of whom is trained in stylometrics. These people are not scientists. When they "look where the light is," they presumably are not faced with the same scientific-methodological issues as a stylometrician. Their methods are different, and they make no claim to produce results with scientific validity. Elliott and Valenza do make such claims, so it seems odd that, when pressed, they would fall back on the authority, for example, of the author of a book like *Monstrous Adversary*, whose field of expertise is not stylometrics, nor even literary criticism, but paleography. One would think that, when challenged on a methodological issue, they would cite an authority on research design; but Elliott and Valenza never cite any authority on research design (or stylometrics) to justify their methods. Their choice of authorities cannot help but leave readers with the impression that Elliott and Valenza see themselves more as members of an anti-Oxfordian camp than as scholarly, objective analysts of empirical data.

The "drunk looking under the street light" fable is an apt and useful metaphor for the problem under consideration in this paper. The evidence needed to conduct a definitive stylometric comparison of Oxford's mature writing style to Shakespeare's mature writing style is simply not "where the light is."

Untestable claimants

At one point Elliott and Valenza acknowledge that an absence of comparable works is, in fact, an insurmountable obstacle to their stylometric methods. Here is how they put it in their law review article:

[T]he net effect of the grub defense is to move . . . Oxford out of the category of "testable" claimants. . . . Oxford falls instead into the category of "untestable" claimants like the Rosicrucians and the Earls of Derby and Rutland, from whom no poems or plays have survived. No amount of stylometric testing can confirm or deny claims based on what the untestable claimant might have written. But such claims, absent any comparable supporting writing, seem far more speculative than those of the despised [sic] William Shakespeare of Stratford. (395)

We certainly agree that stylometric testing can neither confirm, nor deny, claims based on non-extant writings and we wish Elliott and Valenza would take heed and withdraw their unwar-

ranted conclusions regarding Oxford's claim. To state that Oxford's claim is as "speculative" as that of "the Rosicrucians" is another absurdity, not worthy of anyone who claims to do science. No contemporary wrote that the Rosicrucians included among their number the greatest of Elizabethan poets. It was Oxford, not the Rosicrucians, Derby or Rutland, whom Frances Meres rated as "best for comedy" in 1598. And it was Oxford, not "Shakespeare," who headed Peacham's list of the seven greatest Elizabethan poets in 1622. Elliott and Valenza cannot account for such high praise. They should have concluded that Oxford was untestable.

Elliott and Valenza should have considered from the outset that the true author might be untestable. After all, if the name "Shakespeare" was a pseudonym, then the true author had some cause to conceal his identity. If so, why assume that he would also allow works to be published under his real name at the same time that he was publishing under a pseudonym? If the reasons for the pseudonym were sufficiently compelling, we would expect nothing to appear in his own name after the pseudonym first appeared. Yet their study assumes that the true author would continue to publish in his own name at the same time that he is publishing under a pseudonym. Either they have not considered this, or they are refusing to accept the use of a pseudonym as a possibility. This amounts to a bias against the premise that the name "Shakespeare" may have been a cover.

Summary and Conclusion

The inputs that Elliott and Valenza used in their study do not warrant the unqualified conclusion they reached for Oxford. They did not compare Oxford's songs to Shakespeare's songs, nor did they compare a clean, unconfounded sample of Oxford's poems to Shakespeare's poems. They incorrectly assumed that print dates during Elizabethan times were always close to dates of composition, and they consequently assumed that Oxford's youthful verse was representative of his mature poetry. This issue was critical to the validity of their results, yet they ignored it until after it was first raised by others. They consistently ignored the praise by Oxford's contemporaries to the effect that he was among the greatest of Elizabethan poet-playwrights. The contrast with the works in their sample should have alerted them to the likelihood that they were working with an incomplete, invalid sample and that any differences between Oxford's and Shakespeare's verse could well be developmental. They should have concluded that although they found little stylometric support for Oxford, he was not a fully testable claimant, and so could not be eliminated. _____ 🐉

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