"Text up his name": The Authorship of the Manuscript Play *Dick of Devonshire*

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The manuscript play Dick of Devonshire *has been attributed to several early modern dramatists, including Thomas Heywood, Robert Davenport, James Shirley, and Thomas Dekker. Identifying the author is important to obtaining a better understanding of the play's place in the Caroline commercial theater industry and how it came to be staged by Queen Henrietta Maria's Men in the summer of 1626. This article reviews the arguments that have been made for and against the various authorial candidates and, using historical and literary evidence as well as new computational analysis, establishes that Thomas Heywood is the play's most likely author.*

On October 22, 1625, an English fleet led by Edward Cecil, first Viscount of Wimbledon, arrived in the Bay of Cádiz and landed a force of approximately ten thousand soldiers to sack the Spanish city. Unprepared for the extent of the fortifications, lacking sufficient provisions, and suffering losses and damage already from terrible weather encountered at sea, the English immediately found themselves ill-equipped for the siege. Before they could be routed by the arrival of the Spanish army, they beat a hasty retreat back to sea, abandoning over a thousand English soldiers in the process. Among those left behind was Richard Peeke, a gentleman of Tavistock who had acquired the adventuring urge as part of Sir Robert Mansell's expedition against Algiers in 1621. Peeke, left starving ashore in Spain, attempted to steal some oranges and lemons from a garden, but he was captured there and taken into the city as a prisoner. The force of his character, however, and his skill displaying various English fighting styles, earned

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him the respect of his captors, and on Christmas Day he was granted an audience with the royal family. King Philip was impressed by the rough Englishman and permitted him to return to England. Following his arrival in London in April 1626, Peeke was summoned before King Charles, to whom he presented the manuscript account of his adventures which was quickly, probably within the month, printed as a pamphlet by John Trundell. The pamphlet, *Three to One*, then served as the source for a new play in which Peeke's adventures in Spain appeared as one plot set alongside a wholly invented plot centered on a conflict between two rival Spanish brothers and their clever father. The identity of the playwright responsible for dramatizing the story of this sudden celebrity, and thus the place of Peeke's story in the context of early Caroline theatrical history and culture, has been the subject of speculation and debate since the late nineteenth century.

The text of the play *Dick of Devonshire* survives only as a manuscript bound into the famous MS Egerton 1994 collection held by the British Library (fols. 30–51). From the nature of the text, W. W. Greg convincingly identified it as a scribal copy; Greg also thought there was some slender evidence that it was based on a playhouse manuscript, and while G. E. Bentley thought it unlikely because he expected it to contain "far more anticipatory directions" (a generalization that William B. Long has shown to be a fallacious assumption about playhouse manuscripts), most subsequent commentators, particularly Long, have found the case for a playhouse origin compelling.[1] The text is crowded onto the pages with many stage directions and speech prefixes peculiarly occurring in the middle of the text column rather than in the margins. This, combined with the addition of a title page and *dramatis personae* list at the start of the manuscript—neither of which typically appears in most playhouse manuscripts—has led to the conclusion that the scribe was preparing the manuscript for a reader, though precisely who or for what purpose is not known. Nor is it evident from the manuscript or any external evidence which playing company owned

[1] Greg, *Dramatic Documents from the Elizabethan Playhouses*, 2 vols. (Oxford: Clarendon Press, 1931), 2:329–32. See also Bentley, *The Jacobean and Caroline Stage*, 7 vols. (Oxford: Oxford University Press, 1966–68), 5:1318–19; and Long, "Playhouse Shadows: The Manuscript behind *Dick of Devonshire*," *Early Theatre* 17 (2014): 146–68. James G. McManaway and Mary R. McManaway suggest that three revisions in the manuscript may indicate the presence of the author correcting the scribe's work, but all three of these instances could just as easily be accounted for as an attentive scribe recognizing and correcting his own mistakes. See McManaway and McManaway, eds., *Dick of Devonshire*, Malone Society Reprints (Oxford: Oxford University Press, 1955), vi.

the play. The primary source for the main plot was Richard Peeke's *Three to One*, which had been published by John Trundell by July 1626, and the play's subject—the adventures of Peeke, a Devonshire soldier who fought at Cádiz and returned to London in April 1626—was topical that year, both of which make it likely that the play was written in the late summer of 1626. In the play itself, a Devonshire merchant refers to the defeat of the Spanish armada in "Eighty Eight" as having occurred "Thirty eight yeares agoe," which confirms the date of the play as 1626.[2] The two London troupes with likeliest claims to the play would therefore have been either the King's Men or the relatively new Queen Henrietta Maria's Men. The fact that the manuscript is written in a hand utterly unlike any of those found in King's Men's plays of the 1620s—most notably, the hand of their regular playhouse scribe in the 1620s, Edward Knight—makes it more likely that *Dick of Devonshire* belonged to Queen Henrietta Maria's Men.

Besides the manuscript's status as a reflection of a playhouse copy, *Dick of Devonshire*, like many anonymous plays, has also sparked debate over the question of its authorship. In the case of *Dick of Devonshire*, the play's authorship has important bearing on its status as the reflection of a playhouse manuscript because knowledge of who wrote the play can help us better situate it within the context of the theater industry in the very early years of the Caroline period. Four candidates have emerged as favorites; they are, in the order in which scholars have proposed them, Thomas Heywood, Robert Davenport, James Shirley, and Thomas Dekker. The first scholar to assign an author to *Dick of Devonshire* was A. H. Bullen, who, though "loth to speak with positiveness," cautiously advanced Heywood as the "practiced hand" behind the play but also indicated that F. G. Fleay had privately proposed Davenport.[3] In response, Fleay denied that he had suggested Davenport and argued instead that the play is Shirley's supposedly lost 1626 Queen Henrietta Maria's Men play *The Brothers*.[4] Finally, the possibility of Dekker was raised, hesitantly, by Martin Wiggins, in his *British Drama* entry on the

[2] McManaway and McManaway, *Dick of Devonshire*, 203–4. All subsequent references to the play will appear as in-text citations to through-line numbers from the McManaways' Malone Society edition. An earlier edition of the play appeared in J. Brooking Rowe, *Richard Peeke of Tavistock: His "Three to One," the Commendatory Verses, and the Play of "Dick of Devonshire"* (Exeter: James G. Commin, 1905). However, Rowe hazards no guesses about the play's authorship and simply reprints A. H. Bullen's edition for his text.

[3] Bullen, *A Collection of Old English Plays*, 4 vols. (London, 1882–89), 2:3.

[4] Fleay, "Annals of the Careers of James and Henry Shirley," *Anglia* 8 (1884): 406.

play.[5] In this article, we will evaluate the arguments for and against each of these candidates and, using both historical evidence and newly available computational methods, defend Bullen's initial attribution of the play to Thomas Heywood.

JAMES SHIRLEY

Fleay's confident claim that *Dick of Devonshire* is a lost play by Shirley called *The Brothers* was based on his observation that the Don Pedro Gusman subplot centers on his two sons, Henrico and Manuel, and in the final scene the Duke of Macada states that letters will be dispatched "to tell ye king y^ese^ stories of Two Brothers / worthy ye Courtiers reading" (2122–23). These grounds are fairly thin. Dick Pike (the play's Dick Peeke) is clearly the prominent draw of the play and would have been the center of any interest it would have had in performance, which makes it difficult to see why either the playwright or Sir Henry Herbert—whose record of licenses is what provides the name of "The Brothers"—would have resorted instead to a rather vague title based on two characters from a subplot.[6] Another play called *The Brothers*, written by Shirley, was published in 1653, but this was likely not the same as the 1626 *The Brothers*; rather, as Fleay himself argued, it is probably Shirley's King's Men play *The Politic Father*, licensed by Herbert in May 1641, given a different title.[7] While Fleay's identification of the 1653 *Brothers* as *The Politic Father* has found general scholarly acceptance, his attribution of *Dick of Devonshire* to Shirley appears highly improbable. Not only are the style, genre, and most of the subject matter

[5] Wiggins, *British Drama, 1533–1642: A Catalogue*, 9+ vols. (Oxford: Oxford University Press, 2012-), 8:220.

[6] N. W. Bawcutt, *The Control and Censorship of Caroline Drama: The Records of Sir Henry Herbert, Master of the Revels, 1623–73* (Oxford: Clarendon Press, 1996), 165. The identification of *Dick of Devonshire* with the 1626 *The Brothers* was also rejected by Alfred Harbage, "Shirley's *The Wedding* and the Marriage of Sir Kenelm Digby," *Philological Quarterly* 16 (1937): 35–36.

[7] The case for the 1653 *The Brothers* being *The Politic Father* was made by Fleay ("Careers," 406). It was then expanded upon by Arthur H. Nason, though Nason did not agree with Fleay's further suggestion that *Dick of Devonshire* is the lost 1626 *Brothers*. See Nason, *James Shirley, Dramatist: A Biographical and Critical Study* (New York: Arthur H. Nason, 1915), 46–67. Not all scholars have agreed with Fleay's theory about the 1653 *The Brothers* (for examples, see Felix E. Schelling, *Elizabethan Drama, 1558–1642*, 2 vols. [Boston: Houghton Mifflin, 1908], 2:288; and Robert Stanley Forsythe, *The Relations of Shirley's Plays to the Elizabethan Drama* [New York: Columbia University Press, 1914], 176), though others did (see, for example, Joseph Quincy Adams, *The Dramatic Records of Sir Henry Herbert, Master of the Revels, 1623–1673* [New Haven, CT: Yale University Press, 1917], 39). The identification of the 1653 *The Brothers* with *The Politic Father* is explained in detail by Bentley (*Jacobean and Caroline*, 5:1082–84).

unaligned with the plays Shirley was writing around 1626, but Arthur Nason notes that Pike's assertive and clearly triumphant rebuttal of two Catholic priests, who, "though fryers in Spaine, / were borne in Ireland," and his subsequent mockery of the Catholic sacrament of confession could not reasonably have been written by Shirley, who had converted to Catholicism in 1623 and who would later live in Dublin for four years (1470–71).[8] More broadly, Arthur M. Clark argued that the play displays too competent a sense of professional dramaturgy to have been the work of a young novice playwright who had apparently just started writing plays for the professional stage in 1625.[9]

THOMAS DEKKER

Wiggins's suggestion that Dekker may have been the author arises from two slender connections to his work. First, the epigraph on the title page of the manuscript—"Hector adest secumq[ue] Deos in prœlia ducit" ("Hector is here and leads the gods into battle")—is the same quotation from Ovid's *Metamorphoses* that appears on the title page of Thomas Cotes's 1639 edition of the anonymous play *The Bloody Banquet*, which scholars generally agree was written by Dekker and Thomas Middleton, probably around 1608–1609.[10] Setting aside the obvious risks involved with using one anonymous play as the basis for an argument about the authorship of another anonymous play, it seems unwise to take the shared epigraph as evidence that both plays were from the same hand, because of the challenge of identifying the authorship of paratexts such as epigraphs. As noted above, the title page of the Egerton manuscript, along with the *dramatis personae* list, was just as likely to be a scribal interpolation as authorial, and similarly the epigraph on the

[8] Nason, *James Shirley*, 66–67.

[9] Clark, *Thomas Heywood, Playwright and Miscellanist* (New York: Columbia University Press, 1958), 278.

[10] The play was erroneously assigned to the ghost name "Thomas Barker" in Edward Archer's 1656 play-list, which is an error Archer elsewhere made for "Thomas Dekker," and Anthony Wood in 1675–80 identified it as a Dekker play. See A. C. Baugh, "A Seventeenth Century Play-List," *Modern Language Review* 13 (1918): 409. The first to assign the play to Dekker and Middleton was E. H. C. Oliphant, "*The Bloodie Banquet*, A Dekker-Middleton Play," *Times Literary Supplement* (December 17, 1925), 882. David Lake argued that it was originally written by Middleton and subsequently revised by Dekker even earlier, around 1600–1602. See Lake, *The Canon of Thomas Middleton's Plays* (Cambridge: Cambridge University Press, 1975), 241. This case was reinforced by MacDonald P. Jackson, "Editing, Attribution Studies, and 'Literature Online': A New Resource for Research in Renaissance Drama," *Research Opportunities in Renaissance Drama* 7 (1998): 1–15; and by Julia Gasper and Gary Taylor, "*The Bloody Banquet: A Tragedy*," in *Thomas Middleton and Early Modern Textual Culture: A Companion to the Collected Works* (Oxford: Oxford University Press, 2007), 364–68. Gasper and Taylor argue for a revision as late as the 1620s.

title page of a printed book was just as likely to be added by the stationer as by the author (perhaps doubly so in the case of plays, which were often printed without the author's involvement).[11] Even if the epigraphs were authorial, there is no reason to think that only one playwright would choose a particular passage for an epigraph to his play, particularly given the gap of nearly two decades between the two plays and that no play—by Dekker, Middleton, or otherwise—in the intervening years adopted the same epigraph.

The second coincidence that Wiggins notes as potentially signaling a connection to Dekker is the fact that the scribe who copied *Dick of Devonshire* also supplied replacement manuscript pages—evidently also based on a now-lost playhouse manuscript—to one of the extant printed copies of the anonymous 1601–1602 Children of Paul's plays, *Blurt, Master Constable*, a play often attributed to Dekker or to Dekker and Middleton in collaboration and printed in 1602.[12] Again, setting aside the risks of using an anonymous play as evidence to attribute another anonymous play, there is no reason to think that a scribe, particularly a playhouse scribe, would only work on plays from one author, or that at the time the manuscript additions were inserted into the copy of *Blurt*—possibly as much as twenty years or more after its writing and publication—the play was still connected in any way to its author or authors. The conclusion offered by James and Mary McManaway in their Malone Society edition of the play is the simplest and therefore most likely solution: "both plays [that is, *Blurt* and *Dick of Devonshire*] may have belonged in 1626 to the same company."[13]

Wiggins vaguely proposes that "the play has some lexical overlap with Dekker's habits," but even he is forced to admit that "the evidence is not compelling."[14] Perhaps also mitigating the attribution to Dekker is the fact that *Dick of Devonshire* was written during a period when he was absent from the English theater: after a highly productive year in 1624 (cowriting the Lady Elizabeth's play, *The Sun's Darling*, with John

[11] There is no other manuscript of a play by a professional dramatist that bears an epigraph; the only other extant play manuscript from the period with an epigraph is amateur dramatist William Percy's 1646 authorial copy of his 1632 play *Necromantes*, held at Alnwick Castle (MS 509). Nonetheless, based exclusively on printed editions of plays that bear epigraphs, James G. McManaway assumes that "a number of authors, Heywood among them, habitually put a motto on the title-page of their dramatic manuscripts" ("Latin Title-Page Mottoes as a Clue to Dramatic Authorship," *Library*, 4th ser., 26 [1945]: 34).

[12] Folger Library, STC 17876, H2–3.

[13] McManaway and McManaway, *Dick of Devonshire*, vii.

[14] Wiggins, *British Drama*, 8:220.

Ford, as well as at least six lost plays), he was evidently hit hard by the 1625 plague closures and did not pen another play for the public stage until his lost 1629 plays *Believe It Is So and Tis So* and *The White Moor*.[15] In the years between 1625 and 1629 he had shifted his focus primarily to his old profession of pamphleteering and to writing mayoral pageants, as well as fighting charges of recusancy in 1626 and 1628. The two coincidences on which Wiggins tentatively advanced the attribution to Dekker, then, are quite implausible—indeed, given that Middleton may have had a hand in both *The Bloody Banquet* and *Blurt*, those same coincidences could equally justify Middleton as much as Dekker as the author of *Dick of Devonshire*.

ROBERT DAVENPORT

The claim for Davenport—championed particularly by James McManaway—has received far more consideration than those for Shirley or Dekker and, unlike those cases, has several more points to weigh. In his 1945 article on Latin epigraphs in plays, McManaway argued that *The Bloody Banquet* was written by Davenport and that the correlation of the two epigraphs indicates Davenport was thus also the author of *Dick of Devonshire*. As noted, using identical epigraphs as evidence of identical authorship is flawed, particularly given the length of time between the two plays. There are also ample reasons to dispute assigning *The Bloody Banquet* to Davenport in the first place: the title page initials identify the author as "T. D."; the play was written in 1608–1609, but Davenport's three extant plays all date from after 1624; and, as noted above, a series of stylistic studies have shown that it aligns with the work of Dekker and Middleton.[16] In his 1945 article, McManaway states that he detected "considerable internal evidence" that would allow him to assign *Dick of Devonshire* to Davenport, though it was not until the 1955 Malone Society edition that he provided specific evidence to support this claim.[17]

[15] The only exceptions to this were three mayoral pageants: a lost one in 1627, *Britannia's Honor* in 1628, and *London's Tempe* in 1629.

[16] Richard Davidson is incorrect in asserting that McManaway changes Robert Davenport's name to "Thomas Davenport" in order to align it with the initials on the title page of *The Bloody Banquet*. See Davidson, "Anonymous Plays," in *The Later Jacobean and Caroline Dramatists: A Survey and Bibliography of Recent Studies in English Renaissance Drama*, ed. Terence Logan and Denzell Smith (Lincoln: University of Nebraska Press, 1978), 218.

[17] McManaway, "Latin Title-Page," 35.

The McManaways identify several situational parallels between *Dick of Devonshire* and Davenport's *The City Nightcap*, which was licensed for an unknown company in October 1624, ultimately entered the repertory of the Queen Henrietta Maria's Men, and was printed in 1661.[18] Several are rather broad parallels that could be drawn between *Dick of Devonshire* and any number of contemporaneous plays. For example, Don Pedro's servant clown Buzzano resembles Lodovico's servant clown Pambo from *City Nightcap*, but the character type of the servant as a clown was commonplace, including, notably, in the plays of Thomas Heywood. Similarly, in both *Dick of Devonshire* and *The City Nightcap,* a character is disguised as a priest, but this device was also regularly used by other writers throughout the period. Reliance on common narrative situations as evidence undermines several other points of identification the McManaways note between beats in the two plays, including a woman rejecting the sexual advances of a man, a trial resolved by the revelation that the supposed victim is still alive and in disguise, a misreported private conversation, and a character describing his concept of an ideal wife.[19]

Relying on such situational parallels for evidence of authorship requires selective reading and ignores the practice and effect of emulation and influence, both of which were particularly important in the context of writing for the commercial theaters. Situational parallels between two plays, after all, could be explained as a function of a single company, venue, or audience for which plays were written: if Queen Henrietta Maria's Men found *City Nightcap* to be the type of play with the type of content that would satisfy its audience, it stands to reason that any savvy dramatist writing for that troupe and audience would—either deliberately or unconsciously—employ devices and situations familiar from that company's repertory and thus that implicitly satisfy its audience. Certainly, the confluence of so many shared situations between the two plays is notable, but, given how routine all of these were in plays throughout the period, that fact alone is not credible as evidence of shared authorship. Two plays that make similar narrative moves do not necessarily originate from the same playwright. It does seem that the author of *Dick of Devonshire* was familiar with *City Nightcap*, but there is no reason to suppose that he could not have simply drawn upon that play as source material for his own subplot without

[18] See McManaway and McManaway, *Dick of Devonshire*, x–xi.
[19] Ibid., *Dick of Devonshire*, xi.

being the same person who wrote the earlier play. If so, given that *City Nightcap* was not in print until 1661, that playwright must have been someone with access to the play in manuscript—that is, he must have been connected to the troupe that owned *City Nightcap* around 1626: Queen Henrietta Maria's Men. Heywood, of course, was writing for the company at that time, though the McManaways are quick to dismiss the possibility that Heywood might have been borrowing from Davenport by assuming that he "had no need to borrow so heavily from a younger playwright."[20] This is an assertion that ignores the nature of the commercial theatrical marketplace: the age or relative experience of another playwright is immaterial to the question of whether or not their play provided good fodder for another playwright, particularly, again, one writing to satisfy the needs and audience of the same troupe.

Though Clark argued that the play bears "no resemblance at all [to Davenport's] lifeless and pedestrian work," the "strongest evidence" that the McManaways detect for Davenport as author relates to the rather vague category of style.[21] They note that the "sententiousness of many of the speeches" and especially the use of "moralizing couplets" recall similar affects in *City Nightcap* and in another Davenport play, *King John and Matilda*.[22] While the degree of "sententiousness" one detects in a given speech is, of course, subjective, it is important to point out that other playwrights—including, notwithstanding the McManaways' claim otherwise, Heywood—were also using couplets in the 1620s and 1630s. In Heywood's *The English Traveller* (1624), for example, Young Geraldine insists that "'Mongst all these nations I have seen or tri'd, / To please me best, here would I chose my bride."[23] Later in the play, Young Lionel concludes a highly "moralizing" verse soliloquy by lamenting that the habit of "yielding place to every riotous sin, / Gives way without to ruin what's within" (C1r). Shortly after, observing two prostitutes in conference, he continues to moralize: "O here's that hail shower, tempest, storm, and gust, / That shatter'd hath this building, let in lust" (C1r), and when he rebukes one of the prostitutes, he threatens, "Sail by one wind; thou shalt to one tune sing, / Lie at one guard, and play but on one string" (C2v). Ample and similar uses of "moralizing couplets" can be found in *The English Traveller* and

[20] Ibid.
[21] Clark, *Thomas Heywood*, 279.
[22] McManaway and McManaway, *Dick of Devonshire*, xi.
[23] Heywood, *The English Traveller* (London, 1633), B2v, hereafter cited parenthetically by signature.

other Heywood plays from the Jacobean and Caroline periods. Compounding the problem with reading the play's style as an index of authorship is the fact that much of the language in the main plot comes from the play's primary source, Peeke's 1626 pamphlet. As evidence relevant to authorship, such stylistic and prosodic practices are plainly unreliable.

Perhaps the least compelling of the arguments for Davenport's authorship relates to the provenance of the extant manuscript of *Dick of Devonshire*. The plays that comprise MS Egerton 1994 were evidently compiled in the 1640s by the actor-turned-bookseller William Cartwright, who donated the collection to Dulwich College.[24] Around 1634–35, Cartwright appears to have been a member of the King's Revels Men—or some amalgamated troupe comprising members of that company and others—and later, just before the 1642 closure, Queen Henrietta Maria's Men.[25] The McManaways consider the fact that Cartwright was a member of Queen Henrietta Maria's Men to be further proof that Davenport wrote *Dick of Devonshire*, since three other plays of his may have been in the hands of that troupe at some point (*City Nightcap* ended up in their possession, and *King John and Matilda* was written for it around 1628–29; the third play, *A New Trick to Cheat the Devil*, may have been in their repertory, though, as Bentley points out, there is actually no positive evidence that it was there—or even that Davenport wrote it).[26] Furthermore, and perhaps even more troubling for the McManaways' claim, the Egerton 1994 collection contains plays that originated with other companies as well, and many other playwrights: *The Elder Brother* (1625?) by John Fletcher and Philip Massinger for the King's Men, *The Captives* (1624?) by Heywood for the Lady Elizabeth's Men, *The Escapes of Jupiter* (1625?) by Heywood for an unidentified company, *The Lady Mother* (1635) by Henry Glapthorne for the King's Revels Men, *The Poor Man's Comfort* (1617–18) by Robert Daborne for the Queen Anne's Men, *The Launching of the Mary* (1632) by Walter Mountfort, apparently for the second Prince Charles's Men, and seven other anonymous plays (including one, *The Captives*, now accepted as Heywood's) and one anonymous masque, all evidently written by a variety of playwrights and for various contexts and troupes. The McManaways assert

[24] On the provenance of MS Egerton 1994, see Frederick S. Boas, *Shakespeare and the Universities* (Oxford: Basil Blackwell, 1923), 96–110.

[25] For what is known of Cartwright's career, see Bentley, *Jacobean and Caroline*, 2:404–5.

[26] McManaway and McManaway, *Dick of Devonshire*, xii. On *A New Trick to Cheat the Devil*, see Bentley, *Jacobean and Caroline*, 3:235.

that this diversity proves that Davenport wrote *Dick of Devonshire* because his "pen was not the property of any one company," but this was true also of other dramatists whose works are included in the Egerton 1994, including, of course, Heywood.[27] Clearly, the provenance of the Egerton 1994 collection cannot be taken as evidence for or against any particular playwright being the author of *Dick of Devonshire*—or really as authorship evidence for any of the anonymous plays in the collection.

THOMAS HEYWOOD

Bullen's case for Heywood's authorship of *Dick of Devonshire* was predicated upon much the same impressionistic grounds regarding style that the McManaways later used to justify the attribution to Davenport. Writing vaguely of Heywood's "generous kindliness" and "gentle, benign countenance, radiant with love and sympathy," Bullen pointed to the "naturalness and simplicity" of the play.[28] In addition, he drew generalized parallels between passages, characters, and situations in *Dick of Devonshire* and in Heywood's *If You Know Not Me, You Know Nobody* (1604–1605; revised 1632), *Fortune by Land and Sea* (1607–1609), and both parts of *Fair Maid of the West* (1597–1604 and 1630–1631). Many subsequent commentators found these generalized parallels sufficient to accept the attribution, including D. P. Alford, Algernon Charles Swinburne, Adolphus William Ward, Mowbray Velte, Frederick S. Boas, G. E. Bentley, and Arthur M. Clark.[29] In the process of discussing Peeke's pamphlet account of his adventures, Ronald Bedford, Lloyd Davis, and Philippa Kelly conclude simply that the play based on the pamphlet was "almost certainly written by Thomas Heywood."[30] Alford, echoing Bullen's language, noted that the play centers on the kind of "English hero as Heywood loved, and is remarkable for that gentleness in the midst of strength, and for that freedom from insular prejudices, for

[27] McManaway and McManaway, *Dick of Devonshire*, xi.

[28] Bullen, *Old English Plays*, 2:3.

[29] Alford, "*Dick of Devonshire*: A Review with Extracts," *Report and Transactions of the Devonshire Association for the Advancement of Science, Literature, and Art* 24 (1892): 432–34. See also Velte, "The Bourgeois Elements in the Dramas of Thomas Heywood" (PhD diss., Princeton University, 1922), 92–93; Boas, *Thomas Heywood* (London: Williams & Norgate, 1950), 154; Bentley, *Old English Plays*, 5:1320; and Clark, *Thomas Heywood*, 278–79. On Swinburne's and Ward's support of the Heywood identification, see Clark, *Thomas Heywood*, 279.

[30] Bedford, Davis, and Kelly, *Early Modern English Lives: Autobiography and Self-Representation, 1500–1660* (Aldershot: Ashgate, 2007), 142.

which Heywood is so deservedly commended."[31] Velte also saw parallels between the play's subject and that of *The Fair Maid of the West* and *Fortune by Land and Sea*, "handled in Heywood's typical manner," and also considered the play's use of its source material in Peeke's pamphlet as following Heywood's usual habits.[32] Clark similarly linked the use of the pamphlet's material with the manner in which Heywood drew upon his sources, particularly for *The Captives*, and found the characterizations and particular scenarios, as well as "the sentiments, the phrasing of them, and the verse in which they are cast [to] have all the indubitable Heywood quality."[33] Bentley concurred, identifying the play's "attitudes . . . towards England, Catholicism, bourgeois sentiments, and English adventurers abroad, as well as the structural characteristics of the piece" to be "very like Heywood."[34] Certainly, the historical Peeke was akin to the kind of middling and working class English "good fellows" whom Heywood frequently dramatized; Peeke was, as he described himself, someone who "know[s] not what the Court of a King meanes, nor what the fine Phrases of silken Courtiers are: A good Shippe I know, and a poore Cabbin, and the Language of a Cannon, [someone whose] Breeding has bin Rough, (scorning Delicacy:) And [who is] blunt, plaine, and unpolished."[35] As evidence of authorship, such broad categories are, of course, not convincing, and not all commentators have agreed with Bullen's claim. The anonymous reviewer of Bullen's edition for *The Saturday Review of Politics, Literature, Science, and Art*, for example, found the attribution to Heywood "a rather specious attribution" but gives no justification other than the vague and ahistorical assertion that it is based on their "not inconsiderable reading of the Elizabethan [*sic*] drama."[36] Felix E. Schelling likewise dismissed the attribution to Heywood, as well as apparently Fleay's attribution to Shirley, but also offered no reason for doing so.[37] Neither does Wiggins explain further why he finds the attribution to Heywood "less plausible" than the attribution to Davenport.[38]

[31] Alford, "Review with Extracts," 434.

[32] Velte, "Bourgeois Elements," 93.

[33] Clark, *Thomas Heywood*, 280; see also 319 and 321.

[34] Bentley, *Old English Plays*, 5:1320.

[35] Peeke, *Three to One: Being an English-Spanish Combat* (London, 1626), A4r–v.

[36] "Dick of Devonshire," *Saturday Review of Politics, Literature, Science, and Art* 58 (October 4, 1884), 432–33.

[37] Schelling, *The English Chronicle Play: A Study in the Popular Historical Literature Environing Shakespeare* (New York: Macmillan Company, 1902), 227.

[38] Wiggins, *British Drama*, 8:220.

Unlike other commentators on the play's authorship, Clark looked with some attention at the specific language in *Dick of Devonshire* and came up with thirty-nine passages and turns of phrase that he considered typical of Heywood's style. From these verbal examples, as well as qualities in the "movement of the verse," Clark insisted that "the whole of the dialogue is in [Heywood's] manner" and that the play "could have been written by none but our dramatist" later in his career, under the influence of the successful tragicomedies of Fletcher, Francis Beaumont, and Shirley.[39] Clark's use of phrasal and lexical similarities to support his attribution to Heywood is, of course, potentially just as subjective as the McManaways' use of narrative and structural similarities to support the attribution to Davenport—and both could be charged with potentially ignoring the role of influence and emulation—but in Heywood's case, stylometric analysis supplies further empirical support for Clark's claim.

Placing the play in Heywood's corpus also aligns it well with a specific moment in his career when, after having taken a break from writing for the stage between 1619 and 1624, he returned from what may have been an attempt at retirement. In the last years of his life, the plays Heywood wrote revived his reputation as a dramatist of popular comedies about English people and life, marking a return to many of the themes and subjects that had helped him gain fame earlier in his career during the late Elizabethan and early Jacobean periods.

COMPUTATIONAL ANALYSIS

Stylometric investigation strengthens the case for Heywood's authorship. Attribution testing of this kind requires a corpus of machine-readable texts from which to generate authorial profiles or "signatures" for each candidate to compare with *Dick of Devonshire*.[40] To ensure the accuracy of these profiles, we exclude texts of collaborative or uncertain

[39] Clark, *Thomas Heywood*, 284; for Clark's examples, see 281–86.

[40] For a general and gentle overview of authorship attribution and its history, principles, and methods, see Harold Love, *Attributing Authorship: An Introduction* (Cambridge: Cambridge University Press, 2002). For a discussion of more recent computational interventions in the context of early modern dramatic authorship, see Hugh Craig and Arthur F. Kinney, eds., *Shakespeare, Computers, and the Mystery of Authorship* (Cambridge: Cambridge University Press, 2009); and the case studies in Gary Taylor and Gabriel Egan, eds., *The New Oxford Shakespeare: Authorship Companion* (Oxford: Oxford University Press, 2016).

authorship, dubious attribution, or questionable provenance from the corpus. Take *A New Trick to Cheat the Devil*, for example: although the title page ascription to "R. D. *Gent*" is routinely identified with Davenport, the 28 March 1639 entry for the playbook in the Stationers' Register names the author as one "m^r^ Damport" (Register D, 436), and the publisher's address suggests the play was "an Orphant, wanting the Father which first begot it";[41] but Davenport was still very much alive in 1639. In addition to this tenuous external evidence, Davenport's authorship has been questioned on stylistic grounds, with David J. Lake concluding that the play's anomalous linguistic features reflect either a predominance of scribal preferences or the work of another author entirely.[42] Table 1 (see appendix) lists our corpus of twenty-seven representative sole-authored, well-attributed plays by Davenport, Dekker, Heywood, and Shirley, as well as *Dick of Devonshire* itself, along with their dates of first performance, the source texts we use, their dates of publication, and their genres.[43]

To construct authorial profiles, whole texts are not used; instead, statistical analysis identifies patterns in certain variables or *features* selected for their power to discriminate between authors. The features chosen for the first two methods we employ are counts of the most frequent words across the corpus. The bulk of these will be *function words*—that is, words that primarily express grammatical relationships among other words in a sentence and that carry little, no, or ambiguous lexical content, such as prepositions, pronouns, conjunctions, determiners (including the definite and indefinite articles), particles, auxiliary verbs, and some adverbs. Function words are among the most commonly used in a language, because they are essential to the structuring of sentences. Since Frederick Mosteller and David L. Wallace's seminal analysis of *The Federalist* papers, function words have become one of the most popular and best-understood features in authorship

[41] Edward Arber, ed., *A Transcript of the Registers of the Company of Stationers of London, 1554–1640 A.D.*, 5 vols. (London, 1875), 4:462; and R. D., *A Pleasant and Witty Comedy: Called, A New Tricke to Cheat the Divell* (London, 1639), A2r.

[42] Lake, *Major Problems of Authorship*, 233–38. By way of further example, *1* and *2 Edward the Fourth* are excluded from the corpus because the external evidence is wanting and, although the internal evidence suggests "Heywood was at least a principal author of the play," it does not exclude the possibility of collaboration: see Richard Rowland, introduction to *The First and Second Parts of King Edward IV*, ed. Rowland (Manchester: Manchester University Press, 2005), 9–11.

[43] To populate much of this table, we relied on data from DEEP: Database of Early English Playbooks, ed. Alan B. Farmer and Zachary Lesser (2007–), <http://deep.sas.upenn.edu/>.

attribution.[44] In addition to being ubiquitous and high-frequency, function words may also better reflect a consistent authorial style than lexical or so-called *content* words because they appear to be less constrained by context (such as genre or subject matter) and perhaps even "lie outside the conscious control of authors."[45] Personal pronouns are a notable exception to this general rule, however, as several studies have demonstrated their correlation with genre and, in the case of literary works, the gender of characters; for this reason, we exclude personal pronouns from our feature selection.[46]

Base transcriptions of the corpus texts were checked against facsimiles, contractions were expanded, and function words were annotated to distinguish between—and thereby enable distinct counts to be made for—homograph forms, such as the noun and verb forms of the word *will*. As appropriate, "Thoule" was expanded as one instance of *thou* and one of *will*[verb], "ons" as one instance of *on*[preposition] and one of *his*, and so on. To exclude potentially non-material evidence (such as stage directions inserted by playhouse personnel, literary divisions, speech prefixes, and so on), we restricted our counts to words of dialogue; table 1 also lists the total words of dialogue for each play counted as *tokens*.[47]

With the texts prepared and annotated as described, we use a software application called Intelligent Archive to count the frequency of the top 250 most common words (excluding personal pronouns) across

[44] Mosteller and Wallace, *Inference and Disputed Authorship: "The Federalist"* (Reading, PA: Addison-Wesley, 1964). According to Patrick Juola, "the idea of mining function words for cues to authorship has become a dominant theme in modern research." See Juola, "Authorship Attribution," *Foundations and Trends in Information Retrieval* 1 (2006): 244. See also Roger D. Peng and Nicolas W. Hengartner, "Quantitative Analysis of Literary Styles," *American Statistician* 56 (2002): 175–85; and Antonio Miranda García and Javier Calle Martín, "Function Words in Authorship Attribution Studies," *Literary and Linguistic Computing* 22 (2007): 49–66.

[45] David L. Hoover, "Statistical Stylistics and Authorship Attribution: An Empirical Investigation," *Literary and Linguistic Computing* 16 (2001): 422. See also John Burrows, "Textual Analysis," in *A Companion to Digital Humanities*, ed. Susan Schreibman, John Unsworth, and Ray Siemens (Malden, MA: Blackwell, 2004), 323–47; and Cindy Chung and James Pennebaker, "The Psychological Functions of Function Words," in *Social Communication: Frontiers of Social Psychology*, ed. Klaus Fiedler (New York: Psychology Press, 2007), 343–59.

[46] See, for example, Barron Brainerd, "Pronouns and Genre in Shakespeare's Drama," *Computers and the Humanities* 13 (1979): 3–16; and David L. Hoover, "Multivariate Analysis and the Study of Style Variation," *Literary and Linguistic Computing* 18 (2003): 341–60.

[47] Words are often counted as a *type* (a unique form) or as a *token* (a concrete instance of a type). For example, the previous sentence contains fourteen word-types (*a*, *are*, *as*, *concrete*, *counted*, *form*, *instance*, *of*, *often*, *or*, *token*, *type*, *unique*, and *words*) and twenty word-tokens (i.e., five instances of *a*, two of *as*, two of *type*, and one instance of all remaining word-types).

the corpus in tokens as they appear in each play, and then "cull" or eliminate any words that do not appear in every text.[48] In total, thirty-one of the most frequent words are culled.[49] Since the plays vary in size, the token counts are recorded as proportions of total dialogue to enable direct comparison. The result is a large table with twenty-seven rows (one for each play) and 219 columns (one for each of the most common words, excluding personal pronouns and the thirty-one culled words).[50] Using these proportions, we could project each play as a data point in 219-dimensional space, thereby getting a sense of their relative distances from one another. However, human cognition cannot perceive more than three dimensions, so we employ a standard statistical procedure called Principal Components Analysis ("PCA") to reduce the dimensionality and to get a bird's-eye view of the data. PCA attempts to explain as much of the total variation in the data with as few variables as possible; it accomplishes this by condensing multiple variables that are correlated with one another (but largely independent of others) into a smaller number of composite factors or "principal components." The first principal component ("PC1") is the strongest, accounting for the largest proportion of the total variance in the data; the algorithm then produces the second principal component ("PC2"), which accounts for the greatest proportion of the remaining variance while also being uncorrelated with PC1, and so on.[51]

We import the table of word-frequency proportions into R, a software environment for statistical computing, and use the built-in PCA algorithm ("prcomp") as part of the core "stats" package to reduce the data to the two strongest factors.[52] We then project each play as a data

[48] Centre for Literary and Linguistic Computing, University of Newcastle, Australia, *Intelligent Archive*, version 3.0 beta (Rosella), 2018, <https://c21ch.newcastle.edu.au/ia/>. Intelligent Archive outputs the counts in CSV format; the culling procedure is then performed in Microsoft Excel.

[49] For example, the word *duke* is not present in twelve of the twenty-seven texts. The thirty-one culled words include the following: *duke*, *god*, *sister*, *queen*, *madam*, *king*, *unto*, *does*, *lords*, *kings*, *brother*, *has*, *wife*, *prince*, *gold*, *son*, *set*, *faith*, *ha*, *father*, *gentlemen*, *every*, *night*, *honest*, *because*, *through*, *even*, *hold*, *woman*, *country*, *thoughts*.

[50] This table, in CSV format, is available to download from <https://github.com/JackWilton1594/SP-Devonshire/>.

[51] Hugh Craig and Brett Greatley-Hirsch, *Style, Computers, and Early Modern Drama: Beyond Authorship* (Cambridge: Cambridge University Press, 2017), 30–39. See also I. T. Jolliffe, *Principal Component Analysis* (New York: Springer, 1986). On the use of PCA for authorship attribution, see José Nilo G. Binogo and M. W. A. Smith, "The Application of Principal Component Analysis to Stylometry," *Literary and Linguistic Computing* 14 (1999): 445–65.

[52] R Foundation for Statistical Computing, *R: A Language and Environment for Statistical Computing*, version 4.2.1, 2022, <https://www.r-project.org/>. When analyzing

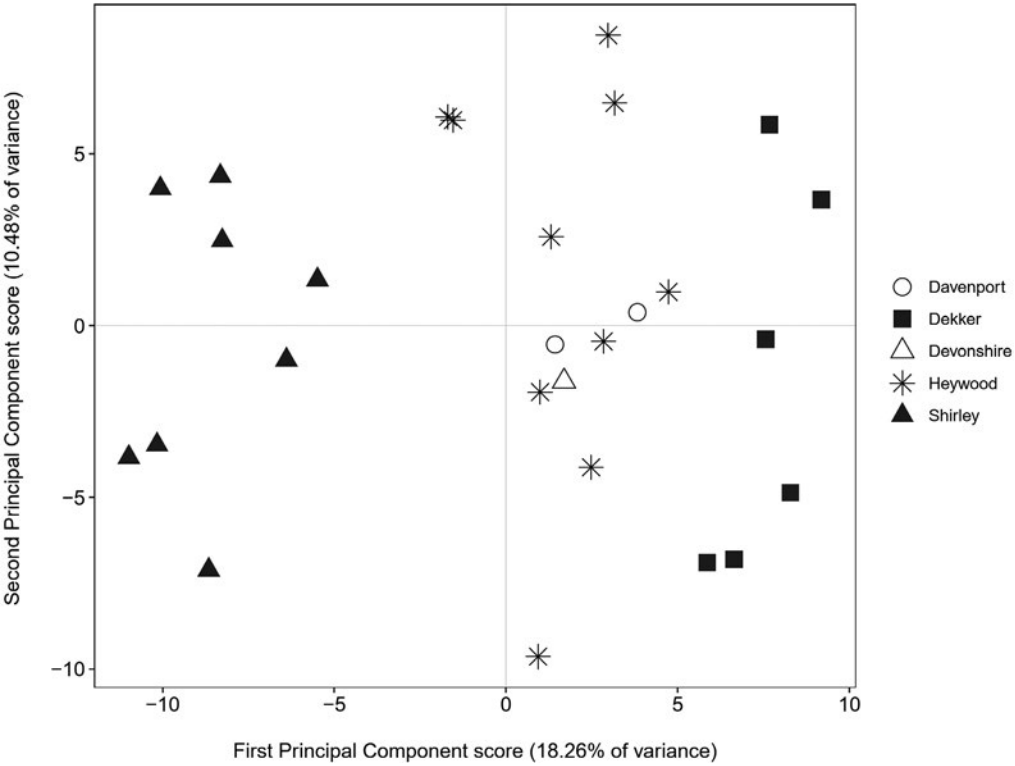

Figure 1. *PCA scatterplot of dialogue from plays listed in table 1, using the top 250 most frequent words (excluding personal pronouns and culled to words present in all texts).*

point in two-dimensional space (see figure 1), treating the scores on PC1 and PC2 as *x*- and *y*-coordinates respectively. The data points are then labeled by author, because this information was withheld from the algorithm.[53] Several patterns emerge in the data upon visual inspection of the scatterplot, the most significant being represented

correlation, the prcomp algorithm standardizes the variables and then uses singular value decomposition to reduce the data to factors. PC1 accounted for 18.26 percent of the total variance in the data and PC2 for 10.48 percent of the remaining; combined, PC1 and PC2 explain 28.74 percent of the total variance.

[53] PCA is a so-called "unsupervised" method because the algorithm treats all of the data indifferently; it does not know the authorship of any given data point beforehand.

along the strongest principal component (PC1). All the Shirley plays in the corpus (represented as filled triangles) score negatively on PC1 and are plotted together to the left of the origin (i.e., the 0,0 intersection), separated from the others. This clustering indicates a high degree of stylistic affinity among Shirley's plays—that is, they share similar patterns in the relative frequency of the words most common to all the texts (excluding personal pronouns), patterns that are highly distinctive. By contrast, other plays, including *Dick of Devonshire* (represented as an unfilled triangle), score much higher on PC1. This strongly suggests that Shirley is not the author of *Dick of Devonshire* and that we must look elsewhere.

Using the same table of word-frequency proportions, we can calculate "distances" between *Dick of Devonshire* and the plays by Davenport, Dekker, Heywood, and Shirley, with the assumption that the author whose plays are closest by this measure is the least unlikely author of *Dick of Devonshire*. A standard procedure for this task is Delta, which has "come to represent the baseline against which new methods are compared."[54] The procedure begins by transforming the word-frequency proportions into *z*-scores (i.e., by subtracting the mean and then dividing by the standard deviation of the proportions for each word across all the plays) and then calculating absolute differences (i.e., ignoring whether the figures are positive or negative) between the mean *z*-scores for each author and the corresponding *z*-score in the text of uncertain authorship. The absolute differences are then combined to produce a composite measure of difference or "Delta" distance for each author. To test the method, we conduct "leave one out" cross-validation using Dekker—that is, we conduct a series of tests, treating each Dekker play in turn as if it were of unknown authorship and, using the remaining corpus, calculate Delta distances for each author from that play. Table 2 gives the results of the cross-validation, with the lowest Delta distance in each run shaded. According to table 2, the lowest Delta distance in every run is Dekker's—in other words, the method has correctly identified Dekker as the least unlikely author when testing one of his plays treated as if it were anonymous.

[54] Juola, "Authorship Attribution," 279. For more on Delta, see John Burrows, "Delta: A Measure of Stylistic Difference and a Guide to Likely Authorship," *Literary and Linguistic Computing* 17 (2002): 267–86. See also David L. Hoover, "Testing Burrows's Delta," *Literary and Linguistic Computing* 19 (2004): 453-75; and Shlomo Argamon, "Interpreting Burrows's Delta: Geometric and Probabilistic Foundations," *Literary and Linguistic Computing* 23 (2008): 131–47.

Table 2. *Delta distances between a hold-out Dekker play and four candidate authors as represented in table 1, using the most frequent words common to all texts (excluding personal pronouns).*

	Delta distance			
	Davenport	**Dekker**	**Heywood**	**Shirley**
2 The Honest Whore	218.73	152.55	178.80	230.65
If It Be Not Good, the Devil Is In It	219.30	146.61	190.47	239.63
1 Old Fortunatus	226.41	169.69	197.99	263.22
Satiromastix	221.97	169.41	203.41	258.27
The Shoemaker's Holiday	212.24	184.62	198.15	245.27
The Whore of Babylon	211.06	176.93	199.35	253.35

Satisfied that the method is sound, we repeat the procedure to calculate the Delta distances of *Dick of Devonshire* from the plays of Davenport, Dekker, Heywood, and Shirley. The results of the test suggest that Shirley, with a Delta distance of 199.63, is the most unlikely author of *Dick of Devonshire*—a finding that confirms the inference drawn from the initial PCA results. Davenport is the next most unlikely author, with a Delta distance of 193.98. Of the remaining candidates, Heywood emerges as the least unlikely author with a Delta distance of 165.65, versus Dekker's 172.08. To test these results, we conduct a "leave one out" cross-validation using the whole corpus, excluding each play from the analysis in turn and repeating the procedure. Table 3 gives the results, in which Heywood scores the lowest Delta distance from *Dick of Devonshire* in all twenty-seven runs.

With these results, we can confidently exclude Shirley and Davenport as candidates; however, further testing using a different method and feature selection is necessary to independently confirm the greater likelihood of Heywood's authorship. "It makes sense that writers have preferences for some words, and a tendency to neglect others," and these authorial habits extend beyond the (possibly unconscious) use of function words and other very common words to include less frequent but "strategically chosen lexical words."[55] To focus our attention on these less frequent (but no less characteristic) words, we employ a

[55] Craig and Kinney, *Mystery of Authorship*, 25.

Table 3. *Delta distances between* Dick of Devonshire *and four candidate authors as represented in table 1, using the most frequent words common to all texts (excluding personal pronouns), with a holdout play for cross-validation.*

	Delta distance from *Dick of Devonshire*			
Holdout Play	**Davenport**	**Dekker**	**Heywood**	**Shirley**
–	193.98	172.08	165.65	199.63
The City Nightcap	236.62	172.08	165.57	199.36
King John and Matilda	207.93	172.88	166.52	200.39
2 The Honest Whore	193.88	177.59	165.54	199.19
If It Be Not Good, the Devil Is In It	194.28	174.59	165.86	199.72
1 Old Fortunatus	194.53	170.77	166.35	200.28
Satiromastix	195.48	176.63	167.26	200.99
The Shoemaker's Holiday	194.31	176.65	165.94	199.79
The Whore of Babylon	194.68	174.48	166.32	200.25
A Challenge for Beauty	194.89	173.27	168.10	200.60
The English Traveller	194.69	173.08	164.60	200.61
1 The Fair Maid of the West	193.85	171.60	167.01	198.69
2 The Fair Maid of the West	194.10	173.14	166.66	199.32
The Four Prentices of London	193.45	171.78	166.44	199.60
1 If You Know Not Me	195.43	172.60	166.28	200.23
2 If You Know Not Me	192.96	171.33	168.66	198.33
The Rape of Lucrece	192.89	170.97	165.03	198.61
The Wise Woman of Hogsdon	195.69	172.65	168.28	200.42
A Woman Killed with Kindness	193.36	171.46	165.96	199.02
The Brothers	193.66	171.54	165.22	197.05
The Cardinal	194.04	171.83	165.46	201.96
The Gamester	194.54	172.24	165.97	202.66
Love's Cruelty	194.25	172.49	166.06	202.65
The Opportunity	194.23	172.13	165.68	201.86
The Royal Master	193.79	171.94	165.64	198.75
The Sisters	193.43	171.62	165.23	200.20
The Traitor	193.14	170.98	164.55	201.88

machine learning method called Random Forests.[56] Originally developed as a classification technique for bioinformatics, Random Forests has found success in stylometric analysis and authorship attribution testing.[57] The algorithm begins by constructing binary decision trees—a series of yes/no decisions that lead to further decisions or a predicted classification—each derived from different and random samples of the data. Hundreds of such trees are constructed (hence "Forests"), and each tree contributes a single vote to the outcome (majority) classification. Roughly a third of the data is withheld from this "training" procedure to test the predictive power of the decision trees and to calculate an expected error rate when classifying new, unseen data. By design, this process also mitigates the problem of "over-fitting" the classifiers to the training data and avoids the need for cross-validation.

Following the same process of feature selection and counting as before, we generate proportion counts for all words in the plays of Dekker and Heywood, and then cull to only those words appearing in half of the texts (i. e., in eight of the sixteen plays). This leaves 273 "middling" words, neither ubiquitous nor exclusive, of which 99.27 percent are lexical—words such as *battle*, *wisdom*, *knaves*, *physic*, *neighbour*, and *coin*.[58] Proportion counts for these words as they appear in *Dick of Devonshire* are then added, and the resulting table, with twenty-seven rows (one for each play by Dekker, each play by Heywood, and *Dick of Devonshire*) and 273 columns (one for each of the "middling" words), is imported into R.[59] We then use the "randomForest" package to train twenty forests of five hundred decision trees on the plays of Dekker and Heywood with which to classify *Dick of Devonshire*.[60] In the first run, Random Forests trains five hundred trees, which correctly classify fifteen out of the sixteen plays in the training process, giving an expected error

[56] Leo Breiman, "Random Forests," *Machine Learning* 45 (2001): 5–32; see also David S. Siroky, "Navigating Random Forests and Related Advances in Algorithmic Modeling," *Statistics Surveys* 3 (2009): 147–63.

[57] Representative examples include Mingzhe Jin and Masakatsu Murakami, "Authorship Identification Using Random Forests," *Proceedings of the Institute of Statistical Mathematics* 55 (2007): 255–68; Tomoji Tabata, "Stylometry of Dickens's Language: An Experiment with Random Forests," in *Advancing Digital Humanities: Research, Methods, Theories*, ed. Paul Longley Arthur and Katherine Bode (New York: Palgrave, 2014), 28–53; and Jack Elliott and Brett Greatley-Hirsch, "*Arden of Faversham*, Shakespearean Authorship, and 'the print of many,'" in Taylor and Egan, *Authorship Companion*, 139–81.

[58] There are 16,256 word types in the plays of Dekker and Heywood combined. Of the 273 words occurring in only half of the plays, only two are function words: *our*[truePlural] and *no*[adverb].

[59] This table, in CSV format, is available to download from <https://github.com/JackWilton1594/SP-Devonshire/>.

[60] Andy Liaw and Matthew Wiener, "Classification and Regression by randomForest," *R News* 2 (2002): 18–22.

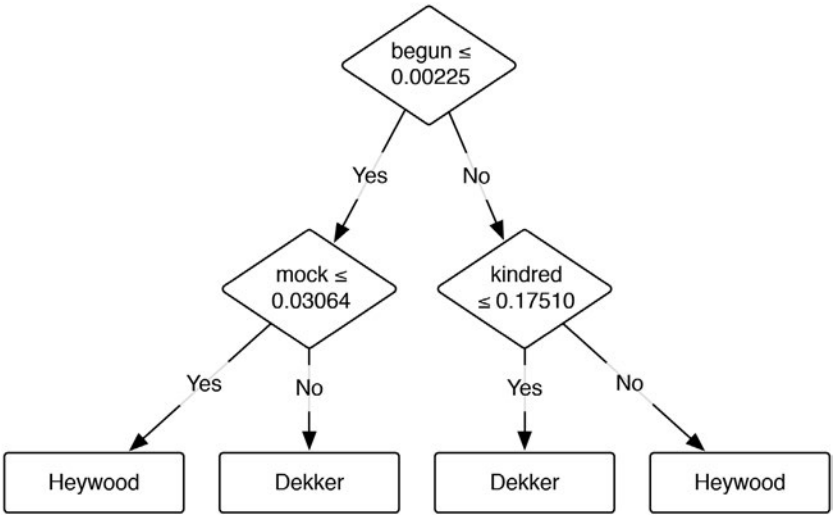

Figure 2. *Sample Random Forests decision tree for classifying* Dick of Devonshire *using 273 "middling" words in plays by Dekker and Heywood.*

rate of 6.25 percent, before assigning *Dick of Devonshire* to Heywood. For illustrative purposes, figure 2 gives an example of a single decision tree generated during this run: if a text contains the word *begun* with a proportion equal to or greater than 0.00225 and a proportion of *mock* greater than or equal to 0.03064, then the tree votes for Heywood as the author, and so on. Table 4 summarizes the results of the twenty runs, giving the number of variables tried at each "split" by the five hundred decision trees, the expected error rates (as a percentage of misclassification), predicted classifications of the Dekker and Heywood plays, and the outcome classification of *Dick of Devonshire*.

Random Forests consistently classifies *Dick of Devonshire* as a Heywood play. The expected error rates are comparatively low, ranging from zero (in the twelfth run) to 25 percent (in the seventh run). The forests are evidently more accurate when classifying Heywood's plays than Dekker's, only occasionally misattributing *The Four Prentices of London* (in runs three, ten, and fifteen). Of Dekker's plays, *The Shoemaker's Holiday* and *Satiromastix* are the most frequently misclassified. Further investigation into these plays may reveal reasons for their repeated misclassification, such as considerations of genre and date, but such speculation is outside the scope of the present study.

Table 4. *Results of 20 Random Forests classifications of* Dick of Devonshire *using 273 "middling" words in plays by Dekker and Heywood.*

			Predicted / Actual		
Run	**Splits**	**Misclassification**	**Heywood**	**Dekker**	***Devonshire***
1	32	6.25%	10 / 10	5 / 6	Heywood
2	8	6.25%	10 / 10	5 / 6	Heywood
3	32	12.50%	9 / 10	5 / 6	Heywood
4	32	12.50%	10 / 10	4 / 6	Heywood
5	4	18.75%	10 / 10	3 / 6	Heywood
6	16	6.25%	10 / 10	5 / 6	Heywood
7	2	25%	10 / 10	2 / 6	Heywood
8	64	6.25%	10 / 10	5 / 6	Heywood
9	8	12.50%	10 / 10	4 / 6	Heywood
10	64	6.25%	9 / 10	6 / 6	Heywood
11	4	25%	10 / 10	2 / 6	Heywood
12	8	0%	10 / 10	6 / 6	Heywood
13	8	12.50%	10 / 10	4 / 6	Heywood
14	16	12.50%	10 / 10	4 / 6	Heywood
15	32	12.50%	9 / 10	5 / 6	Heywood
16	32	6.25%	10 / 10	5 / 6	Heywood
17	8	18.75%	10 / 10	3 / 6	Heywood
18	64	6.25%	10 / 10	5 / 6	Heywood
19	8	12.50%	10 / 10	4 / 6	Heywood
20	32	6.25%	10 / 10	5 / 6	Heywood

CONCLUSION

Although the stylometric analysis cannot exclude the possibility that *Dick of Devonshire* may belong to an author outside of our corpus, the unanimous results of the testing using different methods and feature selection reported here lend compelling support to the earlier, qualitative attribution of the play to Heywood. The computational analysis,

combined with the historical, lexical, stylistic, topical, and generic evidence, allow us to "text vp his name" (1121), as Pedro in the play puts it, and identify the most likely candidate for the authorship of *Dick of Devonshire* as Thomas Heywood.

Few surviving manuscript plays have ties to the early modern playhouses of London, making each uniquely valuable as a source of evidence for theater and literary history in the period, including about performance practices, theatrical commerce and repertory, audience tastes, and more. Establishing the authorship of those plays as firmly as we can allows us to fill in the details of those histories, providing a more accurate picture of the theater industry in the period. In the case of *Dick of Devonshire*, that picture shows Thomas Heywood in the summer of 1626 penning one of the patriotic plays that was the hallmark of his style, telling (and amplifying) the story of a popular English hero. Recognizing Heywood's authorship of *Dick of Devonshire* also allows us to better understand a key moment in the history of the very early Caroline theater. We know that the play was likely staged by the new Queen Henrietta Maria's Men, whose ranks included a number of actors from the former Queen Anne's Men (for whom Heywood had, in the prior decade, written several extremely successful plays) and the Lady Elizabeth's Men (for whom he had written *The Captives* two years earlier). Queen Henrietta Maria's Men had been formed by Christopher Beeston in the fall of 1625 following the reopening of the London playhouses after their lengthy and costly closure from March to October due to the death of King James and the terrible plague outbreak that year. Competition for new plays to help troupes recover from the business they lost that spring and summer must have been tremendous, particularly for a new company that needed to make an immediate name for itself by establishing for the public the kind of plays they could expect to see them perform. The popular narrative of the real-life swashbuckling hero Richard Peeke must have proven irresistible fodder as a crowd-pleaser, and to translate that narrative effectively to the stage and draw in desperately needed crowds, the players of the new Queen Henrietta Maria's Men turned to a familiar writer—recently returned from semiretirement, known and beloved by over a generation of London playgoers, and well skilled in translating tales of English adventurers and other famed English characters to the public stage: Thomas Heywood.

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APPENDIX

Table 1. Dick of Devonshire *and representative well-attributed, sole-authored plays by Davenport, Dekker, Heywood, and Shirley.*

Author	Title	First performance	Genre	Source	Source date	Words
Davenport, Robert	*The City Nightcap*	1624	Tragicomedy	Wing D369	1661	19,174
Davenport, Robert	*King John and Matilda*	1628	History	Wing D370	1655	16,611
Dekker, Thomas	*2 The Honest Whore*	1605 (c.1604–05)	Comedy	STC 6506	1630	23,685
Dekker, Thomas	*If It Be Not Good, the Devil Is In It*	1611 (c.1611–12)	Comedy	STC 6507	1612	22,033
Dekker, Thomas	*1 Old Fortunatus*	1599	Comedy	STC 6517	1600	24,009
Dekker, Thomas	*Satiromastix*	1601	Comedy	STC 6520.7	1602	22,191
Dekker, Thomas	*The Shoemaker's Holiday*	1599	Comedy	STC 6523	1600	19,256
Dekker, Thomas	*The Whore of Babylon*	1606 (c.1606–07)	Allegorical History	STC 6532	1607	21,104
Heywood, Thomas	*A Challenge for Beauty*	1635	Tragicomedy	STC 13311	1636	17,702
Heywood, Thomas	*The English Traveller*	1625 (c.1627)	Tragicomedy	STC 13315	1633	20,970
Heywood, Thomas	*1 The Fair Maid of the West*	1604 (c.1597–1604)	Comedy	STC 13320	1631	14,831
Heywood, Thomas	*2 The Fair Maid of the West*	1631 (c.1630–31)	Comedy	STC 13320	1631	19,813
Heywood, Thomas	*The Four Prentices of London*	1594	Heroical Romance	STC 13321	1615	21,706
Heywood, Thomas	*1 If You Know Not Me, You Know Nobody*	1604 (1604–05)	History	STC 13328	1605	11,456
Heywood, Thomas	*2 If You Know Not Me, You Know Nobody*	1605 (1604–05)	History	STC 13336	1606	21,737
Heywood, Thomas	*The Rape of Lucrece*	1607 (c.1607–08)	Tragedy	STC 13363	1638	21,169
Heywood, Thomas	*The Wise Woman of Hogsdon*	1604 (c.1604)	Comedy	STC 13370	1638	17,636
Heywood, Thomas	*A Woman Killed with Kindness*	1603	Tragedy	STC 13371	1607	16,511
Shirley, James	*The Brothers*	1641	Comedy	Wing S3486	1653	17,988
Shirley, James	*The Cardinal*	1641	Tragedy	Wing S3461	1652	16,505
Shirley, James	*The Gamester*	1633	Comedy	STC 22443	1637	20,019
Shirley, James	*Love's Cruelty*	1631	Tragedy	STC 22449	1640	16,719
Shirley, James	*The Opportunity*	1634	Comedy	STC 22451	1640	18,443
Shirley, James	*The Royal Master*	1637	Comedy	STC 22454	1638	17,953
Shirley, James	*The Sisters*	1642	Comedy	Wing S3486	1653	14,063
Shirley, James	*The Traitor*	1631	Tragedy	STC 22458	1635	19,290
Uncertain	*Dick of Devonshire*	1626	Tragicomedy	MS Egerton 1994	1626	19,240