

Lucy Hutchinson and the Authorship of Two Seventeenth-Century Poems: A Computational Approach

Context of inquiry

David Norbrook has recently offered strong evidence for attributing two seventeenth-century poems to Lucy Hutchinson.¹ He has also invited the present authors to employ the methods of computational stylistics as an independent test of these attributions. The objects of this article, therefore, are to test the authorship of the two poems and to consider the significance of the outcome. Much the larger of the two is *Order and Disorder*, a versification of the Book of Genesis in twenty cantos of rhymed pentameters. Its first five cantos were published anonymously in 1679 and, following Anthony Wood, have always been attributed to Sir Allen Apsley, Lucy Hutchinson's brother (DNB). The whole poem survives in manuscript in the Osborn Collection in the Beinecke Library at Yale University.² The second poem, an anonymous piece running to 188 lines, is a polemical rejoinder to Waller's fulsome 'Panegyrick to My Lord Protector'. It survives among the Additional Manuscripts in the British Library.³

To set our inquiry in context, we shall begin by identifying Norbrook's candidate and sketching some of the literary-historical interest of the case. Lucy Apsley was born in 1620 and married John Hutchinson in 1638. During the Civil War he served as governor of Nottingham on the parliamentary side; later he was one of the regicides. Until Norbrook's researches, and the work of Hugh de Quehen, who has edited her manuscript translation of the *De rerum natura*,⁴ Lucy Hutchinson was known almost entirely for a remarkable memoir of her husband, which is one of the chief eyewitness sources for the Civil War. Indeed, the facts of Hutchinson's canon as they were formerly understood seemed to tell a story in themselves. Her achievement was a significant, but narrow one. In the same manuscript as the life of her husband there is a fragmentary autobiography, which breaks off unfinished. Sandra Findley and Elaine Hobby suggested that after the 'failure' to write her own life Hutchinson found her voice in writing the biography of her husband, and then fell

silent. They expressed frustration that her canon is such that (as so often in seventeenth-century women's autobiography) discussing Lucy Hutchinson's writing one inevitably ends up discussing the deeds of her husband.⁵

Within the *Memoirs of the Life of Colonel Hutchinson* Lucy Hutchinson writes of herself as an actor in the story in the third person ('Mistress Hutchinson', 'she', etc.) but has an 'I' for the author of the memoirs. This Mistress Hutchinson is a submissive wife. She declares her existence to be negated by the Colonel's death: 'Soe, as his shadow, she waited on him every where, till he was taken into that region of light which admitts of none, and then she vanisht into nothing'.⁶ There are some ironies in this situation. As N. H. Keeble points out, Hutchinson celebrates wifely silence and submissiveness, but wrote forcefully and at length. The *Memoirs*, Keeble says, argue fiercely both for rebellion and for patriarchy, championing at the same time the Revolution and submission to male authority; meanwhile every page she writes casts an ironic gloss by its own existence on the arguments for female silence which it puts forward.⁷

Acceptance of Norbrook's attributions would give Hutchinson an altered place in literary history and in the historiography of the Early Modern woman writer. For she would need to be recognised, in the first place, as an independent voice in the resistance to Cromwell's growing power in the 1650s. Nor could she be seen any longer as falling silent after composing elegies on and a memoir to her husband. This Hutchinson, on the contrary, was capable of writing as herself rather than as her husband's wife. She was writing, and indeed publishing, into the late 1670s – the dedication to the Lucretius translation is dated 1675 and the first part of *Order and Disorder* was published in 1679. (She died in 1681 or early 1682.)

The possibility that Lucy Hutchinson wrote these two poems is therefore of real literary and historical interest. But, beyond that, Norbrook's invitation to the present authors came at a time when the analytical methods we shall be employing have been accepted by specialists and are beginning to be recognised by other literary scholars. The methods, one might say, have reached maturity, and, though unfamiliar to many, deserve careful study by anyone interested in empirical work in attribution. They put the close analysis of the linguistic details of style on an entirely new footing. Moreover, as an illustration of method this particular case has interest even to the initiated because the two poems present difficult versions of the problem of testing the authorship of doubtful texts.

The difficulties are conceptual rather than procedural. The poems themselves are long enough to admit such testing. There is a sufficient body of authentic verse by Lucy Hutchinson to allow valid comparisons. And our verse database of over 540,000 words by twenty-five Restoration poets is appropriate to the task.⁸ But the awkward shape of Lucy Hutchinson's *œuvre* makes her stylistic 'signature' hard to resolve. The lack of verse by Apsley means that his claim to the authorship of *Order and Disorder* cannot be

directly assessed. And the anti-panegyric is so detailed a rebuttal of Waller – point by point and quatrain by quatrain – that it might scarcely be expected to yield evidence of any stylistic ‘signature’ but his.

In cases, like Apsley’s, where a candidate offers too little data for proper assessment, the methods of computational stylistics do not allow his claim as author of a given text either to be upheld or to be dismissed with perfect confidence. But where that text either closely resembles or differs sharply from the work of other claimants, firm inferences may nevertheless be feasible. In cases, like Hutchinson’s, where an *œuvre* is unbalanced, due adjustments may be possible. The main body of her writings falls into three unlike sets. Her prose *Memoirs* of her husband are different in kind from any verse and have played no part in our analysis. While her translation of Lucretius’s *De rerum natura* can be brought into service, it is so descriptive and disquisitory in content that it, too, stands apart from most verse of the period. Most of her shorter poems, amounting in all to about 7,500 words, are elegies to her husband. An authorial ‘signature’ derived from any of these three sets will obviously be coloured by the dominant *genre* of that set. In so extreme a case as hers, however, a composite set can only be factitious. We chose, therefore, to take the set of shorter poems as the best available representation of her poetic style while using her Lucretius for corroborative purposes.

The inquiry itself

The methods of attribution used in computational stylistics all rely upon placing texts whose authorship is to be tested in a framework of texts whose authorship is known. It is usually desirable that this framework should extend over a wide range of authors and literary forms. Of the twenty-five authorial sets that make up our main corpus of Restoration verse, the smaller members include as much of each poet’s authentic work as was available. Most of the larger members, however, are taken as samples from even larger *œuvres*. Where there was room to do so, some major poems were held apart to serve as independent corroboration. The Dryden set does not include *Absalom and Achitophel* or his translation of Virgil’s *Aeneid*. The Milton set does not include *Paradise Lost* or *Paradise Regained*. The Oldham set does not include his translations of Juvenal’s Third Satire or of Boileau’s Eighth. The Behn set, finally, does not include *A Voyage to the Isle of Love*. A further poem, *The World’s Infancy*, by Nicholas Billingsley, was included because it might be thought to have some special affinities with *Order and Disorder*, as another versification of the Book of Genesis by a Dissenting author. Each of the twenty-five sets and each of the poems named will take its place as we proceed.

Most texts, of course, were prepared *in toto*. The exceptions, all poems of unusual length, were *Paradise Lost*, Hutchinson’s translation of Lucretius, and *Order and Disorder* itself. In the first two, samples of three hundred

successive lines were taken from each book. In the last, the same procedure was pursued save that additional samples of that size were taken from Cantos 3 and 5 to compensate for those made unavailable by the brevity of Cantos 10 and 20.⁹ The long-preserved separation of the five published and fifteen unpublished cantos of *Order and Disorder* was maintained so that the result of our analysis for each part might verify (or falsify) the other.

In keeping with the practice of most computational stylisticians, all of the texts were modernised to eliminate the sharp discrepancies of spelling that figure in seventeenth-century English texts and affect the word counts on which analyses like ours rely. Contractions and abbreviations were expanded so that the frequencies of words like **I** and **have**, **do** and **not** are not reduced in texts where forms like **I've** and **don't** are common. A few archaic forms like **ere** were altered so as to standardise the counts of words like **ever** and **before**. A number of homographic forms like **to** and **that** were tagged in such a way as to distinguish infinitives from prepositions, conjunctions from demonstratives and relatives. Those which figure among the most common words will be identified in due course.

There is, of course, a multiplicity of ways in which data from machine-readable texts like these can be used in stylistic studies. Indeed, a range of computational techniques have been applied to attribution problems in the seventeenth century in recent years. Most notably, Donald W. Foster has presented evidence based on the frequencies of rare words and some other word-patterns that the 1612 *Elegy* by 'W. S.' is by Shakespeare.¹⁰ (Foster's method has been challenged,¹¹ and many scholars have refused to accept the attribution because of perceived differences between known Shakespeare and the style of the *Elegy*.¹²) Noel B. Reynolds and Arlene W. Saxonhouse have attributed three anonymously published essays to Thomas Hobbes, relying on a series of separate tests involving common words in defined contextual patterns.¹³ The technique used in the present experiment is different again, relying on multiple simple counts of very common words collated by principal component analysis. It has now been used in a range of studies, on Milton, Shadwell, and Rochester, among others.¹⁴ It has survived a number of reviews by specialists in computational stylistics,¹⁵ and according to a recent survey of the field is now established as 'the standard first port-of-call for attributional problems in stylometry.'¹⁶

Principal component analysis is a statistical procedure aimed at highlighting the main features of a complex set of data. Correlations among all the individual variables in a given set of specimens are used as the basis for a new compact set of 'components', composite variables representing as much as possible of the variation in the original set. Each of the original variables has a weighting for each of the components; these can then be used to find scores for the observations on each component.¹⁷ These scores, in turn, show likenesses and differences among the specimens. When principal component analysis is employed in literary applications like ours, the specimens are

texts, parts of texts, or sets of texts. The variables are word-counts for many of the more common English words.

A technical summary like this last paragraph may be of little more service to non-mathematical readers than the mathematical formulae in which such statements are best expressed. But, since no brief plain-English alternative is feasible, there is nothing for it but to seek the patience of such readers while gradually developing a more accessible account.

The fact that mere frequency-counts of common words can shed real light on the resemblances and differences between works of literature rests upon the logical principle of concomitant variation. The same principle lies at the heart of principal component analysis. To show the operation of that principle, let us take a broad illustration and then turn to cases.

If the weight and height of a group of individuals is collected and tabulated, a strong association, a concomitance, will emerge between the two variables. Those who are tall tend to be heavy, and those who are short tend to weigh less. One might be tempted to create a new combined variable, 'size', which captures economically most of the information in the first table. This is a 'principal component' of the data – a vector based on the two original variables which allows us to give each individual in the study a single score which is a combination of those first variables. Most of the variation in height and weight is captured by 'size', but not all, since in any group studied there will be some short but heavy individuals, and some tall but light.

Similarly, a large group of adults might be studied on the basis of such variables as age, wealth, intelligence, educational attainments, physical fitness, leisure pursuits, and so on. There would probably be a concomitant relationship between the variables representing intelligence and educational attainments and a rough concomitance between these two and the wealth variable. There would obviously be a rough inverse relationship between the age variable and the one representing physical fitness. Since the several variables are not entirely *independent* of each other, a rough overall order – or 'principal component' – can easily be envisaged, one on which (alas) the rich, decrepit, old people would stand furthest apart from those they most envy. This can be thought of as a new variable – which might be labelled 'lifestyle' – with each individual in the survey having his or her own score made up of a combination of the original counts.

Not all old people are rich, and not all young people are fit, however. Since, that is to say, the several variables are not entirely *dependent* on each other, lesser 'components' marking residual resemblances and differences are required to fill out the picture. If principal component analysis is used to study such data, the main overall vectors can be set out in dense columns of descending scores. It is usual, however, to represent these main vectors in bi-axial or tri-axial scatter plots, showing where the specimens stand in relation to each other. When the specimens are literary texts, the first two vectors are usually enough to reflect the most interesting of the resemblances and differences.

A further consideration must be entertained. The principal component just envisaged, in which age, wealth, and physical fitness are dominant, also embraces other variables than these, since all of those from our original collection play a part in it, however small (each component is a different combination of all the original variables). Some of them, like the proportions of expenditure directed to strong exercise or hearing aids, are causally related to those already specified. Others like choice of music or behaviour on the road, are less closely linked with those specified. The complexity of such relationships means that the outcome of principal component analysis is *always* subject to interpretation. It also means that some quite unexpected concomitant (like a past outbreak of a widespread debilitating disease, or a severe stock market crash) can make its presence felt. The procedures underlying the creation of the components or vectors are exact and repeatable (these days they are routinely done within a statistics package on the computer) but the analysis and labelling of the vectors is a matter of judgement and interpretation, a best guess based on understanding which variables have contributed most and which individuals are at the extremes. It is always prudent, therefore, to begin an inquiry with exploratory tests in which the data are allowed to speak for themselves. The outcome of those tests then opens the way to controlled experiments, in which the choice of specimens and variables allows increasingly precise hypotheses to be tested.

In the first case to be considered, the specimens are Lucy Hutchinson's shorter verse, treated as a single set; her translation of Lucretius; the published and unpublished parts of *Order and Disorder*; the anti-panegyric; and the twenty-five authorial sets of Restoration verse. As a first set of variables, we shall take the ninety-nine most common word-types of the whole corpus of twenty-five authorial sets.¹⁸ (Ninety-nine is the maximum number of variables in the statistical package that we use.) By allowing the words to choose themselves, we can proceed in the knowledge that we are not manipulating the data in such a way as to produce a desired result. By taking so wide-ranging a set of specimens, we are allowing Hutchinson's known work and the doubtful texts to find their own place within the poetry of that period.

When the whole table of counts for these ninety-nine word-variables in these thirty specimens is subjected to principal component analysis, the first two principal components make the two vectors of Figure 1a. Instead of the age, wealth, and fitness variables of our imaginary example, we have frequencies of **the**, **and**, **of**, and so on, but the principles are the same. Variables which appear together are those which behave alike, tending to be high together in one group of texts and low together in another. Those at either end of a given vector are those that are most important in forming the vector. It will be evident from what has been said that the meaning of such scatter plots lies in the overall patterning of the entries and not in any simple arithmetical relationship. The values given along the axes are non-parametric, created by the

procedure for the purpose, and it is the proximities and separations of the entries in the plot that matter.

Figure 1b shows the text entries on the same two principal components. In that they represent the extreme values of the first two principal components, those entries that lie diagonally opposite each other could be said to differ most sharply from each other. Hutchinson's shorter verse and the unpublished cantos of *Order and Disorder* differ greatly, therefore, from Brome and Gould, while Hutchinson's Lucretius differs even more markedly from the work of Rochester's circle of court wits. The horizontal axis represents the first and most powerful principal component. The plot shows that, on the basis of the ninety-nine variables employed here, the entries for Hutchinson's shorter verse, her Lucretius, and the three doubtful pieces lie about equally far to the west of the other twenty-five entries (to take a metaphor from Mercator's projection of the globe). These five, in other words, resemble each other much more closely than any of them resembles any of the other twenty-five entries. The vertical axis shows, however, that Hutchinson's Lucretius differs, in some notable respects, from her shorter verse and from the three test-pieces.

A study of Figure 1a explains this outcome. The referential force of the personal pronouns makes a suitable point of departure, doing much to account for the contrast between Hutchinson's Lucretius and the work of the court wits. Their rhetoric of direct address manifests itself in a frequent recourse to **I/thou/you** and their cognate forms. **She** and **her** stand nearby in the south-east of the plot, as does **love**, the only truly lexical word in the top ninety-nine. All this – and **never**, too – is the very stuff of love poetry and likewise of the sort of satire that verges on personal invective. At the north-western extremity, on the other hand, the disquisitory rhetoric of Lucretius is characterised by **they/their/them**, by **these/those**, by **we/our/us**, and by such formal connectives as the relative pronoun **which** and the conjunction **that**. For Hutchinson's Lucretius, **we** and **they** refer, respectively, to mankind and the forces of nature. For Brome, the reference is to Cavaliers and Roundheads and for Phillips, it is to members and non-members of a genteel coterie. Meanwhile Hutchinson's frequent recourse to **his**, which lies in the south-western corner, bears chiefly on the attributes of God and the late Colonel.

The diagonal opposition between Brome's territory and Hutchinson's rests, in large part, upon the north-easterly and easterly location of most of the very common verbs. It is not that Hutchinson's syntax lacks necessary verbs but that she makes relatively little use of the major auxiliaries. A closer scrutiny of the location of the common verbs reveals that the present tense and the subjunctive forms lie to the east, often far to the east, of their past tense and indicative counterparts. Lucy Hutchinson, not unexpectedly, treats rather of what was than of what is or what might be. The easterly locations of **be** and the infinitive form of **to** also attest to her lack of complex verb-forms. So, too, do the easterly locations of the conditional and concessional markers, **if** and **though**.

The broad patterns of word-groups like pronouns and common verbs are complemented and reinforced by less obvious phenomena. Hutchinson's frequent recourse to **where** and **before**, **no** and **nor** stands in contrast to her comparatively sparse use of **too** and **as** and **than**. Although it is not easy to generalise about what these subtler contrasts mean, it is often possible to trace a particular thread and, after returning to the texts themselves, to tease out its implications. The fact that the conjunction **as** and the preposition **like** both occur less often in Hutchinson's elegies than in the verse of many of her contemporaries might imply something about her literary style or something about the elegy as a literary form. The former possibility is supported by the very low incidence of **like** in Hutchinson's Lucretius. (The incidence of **as**, however, is somewhat higher in her Lucretius than in her other work.) A comparison with Sedley, who uses **like** more often than any other poet in our set, shows that it occurs about once in every two hundred words of his verse and that, far more often than not, it introduces a true simile. In Lucy Hutchinson's work, whether the elegies or the translation, **like** often introduces a true simile but it occurs only about once in six hundred words. On the whole, moreover, her similes are more traditional and less colourful than Sedley's.

To revert, for the last time, to Figure 1a, the relative weight of its two axes, 16.65% and 11.45%, is another salient feature. The difference shows that the horizontal axis does predominate over the vertical in differentiating among these specimens. The fact that, taken together, they amount to only about 28% of what may be envisaged as 'the whole pattern of these data' means that the stylistic relationships among our specimens are complex. The pattern displayed by plotting the first two principal components is only part of a richer tapestry.

With due allowance for such reservations, Figures 1a and 1b show a genuine stylistic range in which their customary rhetorical strategies align some poets with each other and differentiate them from others. These patterns, of course, are not absolute. To study the underlying differences among those who most resemble each other, we need only exclude those most unlike them and begin afresh. To show how these poets of a past era resemble each other, we need only introduce some of their modern successors. And yet Figures 1a and 1b answer the question proposed. What are the strongest relationships among these specimens, we have asked, when we allow them freedom to dispose themselves according to their several word-counts for a large, unselective group of variables? The answer is that the two Hutchinson sets and the texts associated with them by Norbrook resemble each other and stand apart from all the rest. While this first result has real evidential value, there is good reason not to regard it as conclusive. It is feasible (though not probable), for example, that the more westerly entries in Figure 1b are drawn together not by common authorship but merely by the 'stylistic purity' that often distinguishes single works from mixed authorial sets. (If that were true the location of the entry for Hutchinson's verse among the single works would be due to its representing a set of extremely homogeneous elegies.)

Figures 2a and 2b are designed as a more stringent test of such possibilities. They are constructed in precisely the same fashion as Figures 1a and 1b and are based upon the same ninety-nine variables. For convenience of exposition, the text-plot (2a) will be dealt with first. The only other change between the two analyses is in the choice of specimens for analysis. Hutchinson's Lucretius and the anti-panegyric have been excluded to make for a more straightforward approach to the question of the authorship of *Order and Disorder*, and eight other long poems of the period have been introduced to go alongside the disputed one. Seven of them are by poets who are included in the main corpus of twenty-five but none of them forms a part of those authorial sets. They comprise another versification of Genesis, two Biblical epics, a classical epic, three satires, and a mildly erotic narrative of a beloved won and lost. The object is to attempt a more rigorous analysis by introducing poems of the same *genre* as *Order and Disorder* and poems of quite different *genres*.¹⁹ When these new specimens are allowed to take up their stations among the rest, the outcome can be expected either to support or to undermine inferences about the authorship of *Order and Disorder* arising from the more mixed and more open analysis of Figures 1a and 1b.

Figure 2a clearly strengthens the case for supposing that *Order and Disorder* is the work of Lucy Hutchinson. The entry for her shorter poems lies between the two entries for *Order and Disorder* in the south-western corner of the plot. No other entry is as close to any of them as they are to each other. The other Biblical paraphrase and the three epics lie, like them, beyond the western edge of the main cluster and must therefore share some stylistic properties with them. (The entry for Dryden's *Aeneid* is labelled 'Troy'.) Of the satires, those by Oldham lie in the far north but *Absalom and Achitophel* lies on the south-western edge of the main cluster. The entry for Behn's *Isle of Love* lies on the western edge of that cluster.

The authorial implications of Figure 2a are sustained by the fact that the entries for Milton, Oldham, and Behn lie in the vicinity of the entries for their separate works. In Dryden's case, however, the Troy-entry lies far from the entries for his authorial set and *Absalom and Achitophel*. The Troy-entry, in fact, makes part of a sub-group of three epics and one Biblical narrative, near neighbours on both axes of the plot. While the entries for *Order and Disorder* stand well apart from that sub-group on the vertical axis, they stand with it at the western extremity of the horizontal axis. All in all, Figure 2a attests to the authorship of those poems whose authorship is certain and supports our previous evidence about the two entries whose authorship is in doubt. But its pattern also shows that similarity in *genre* is a force for stylistic resemblance. If authorship entirely governed the pattern of Figure 2a, the Troy-entry would not lie so far from Dryden. But if *genre* were truly dominant, the entries for Milton and Hutchinson, both mainly constituted by short poems, would not lie with the epics in the west. In studying questions

of authorship, it seems, part of the task is to subdue the effects of *genre*. (The corollary, bearing on the study of *genre*, is not our present concern.)

The words that lie at the horizontal extremities of Figure 2b have most effect upon these patterns of authorship and *genre*. To begin, as before, with the personal pronouns, Figure 2b shows a striking departure from Figure 1a. The second-person forms, which all lay close together, now run towards opposed extremities. **You** and **your** are among the words that carry the poets of Rochester's circle towards the north-eastern corner of Figure 2a. **Thou**, **thee**, and **thy**, however, now lie with **me** and **my** towards the west and thus contribute to the location of the sub-group of epics and Biblical verse-narratives in Figure 2a. The point is that the archaic (but not the more modern) second-person forms are even more common in the epics than in the poems of Rochester's circle. The plural pronouns now lie in the south-east – like Phillips, Brome, and Gould. The alteration in our set of specimens, in short, has much affected the main patterns of resemblance and difference but has not separated the two parts of *Order and Disorder* from Hutchinson's shorter verse.

The words at the western extremity include the definite article and most of the common English prepositions. Texts where these words occur freely tend to be more descriptive than most, a property evident in Milton, Tate, and the sub-group of epics but not in any of Hutchinson's work (except for her Lucretius). A dearth of these descriptive forms in her shorter verse and also in the two parts of *Order and Disorder* has much to do with the south-westerly isolation of these three entries in Figure 2a.

Another major group of words in Figure 2b counteracts this effect, uniting these last three entries with all the other westerly entries in Figure 2a. **Is/was, are/were, do/does/did, make/made** exemplify the propensity, here as in Figure 1b, for verbs couched in the past tense to lie to the west of their present tense counterparts. On reflection, it is evident that (except for Oldham's satires) all of the separate poems included in Figure 2a are retrospective narratives in which dialogue plays a strong part. These stylistic properties unite the two Biblical paraphrases with the sub-group of epics, with *Absalom and Achitophel*, and with *A Voyage to the Isle of Love*. The writers may be non-conformist or Anglican, republican or monarchist, male or female, and the subject-matter devotional, satirical or erotic, yet the method groups the texts together, finding a basis for stylistic similarity in a common syntactical pattern. A prevalence of past-tense forms is also characteristic, as noted earlier, of Hutchinson's elegies. And the monologic style of those elegies admits almost as frequent a recourse to the first-person pronouns as that of dialogue. One obvious inference is that the *genre* of epic might fruitfully be regarded as a subset of the larger class of retrospective narrative. Another is that our present analyses are still too strongly coloured by the effects of *genre* to answer exactly to our main purpose.

Let us move away, for the moment, from principal component analysis and attempt to identify the particular words that distinguish Lucy Hutchinson's

shorter verse from the corpus of verse by twenty-five other poets. They are undoubtedly there to be found for, if no such words existed among the ninety-nine most common words of the main set, the Hutchinson-entry in Figures 1b and 2a could not have stood apart. This attempt to achieve a greater particularity will also illustrate why principal component analysis operates with such force in this case.

Figures 3 and 4 treat of two striking instances. The relative pronoun **which** makes up 0.401%, on average, of all the words in our twenty-five authorial sets. It occurs, that is to say, about four times in every thousand words or roughly once in thirty lines of verse. Figure 3 shows that Nahum Tate lies lowest of all these poets, using **which** less than twice in a thousand words. At the top of the range lies Katherine Phillips, who uses it at more than three times that rate. But Lucy Hutchinson flies high above them all. In her shorter verse, she turns to clauses initiated by **which** over eight times in every thousand words. In her Lucretius, that figure is doubled. The incidence of **which** in the two parts of *Order and Disorder* is closely in keeping with Hutchinson's rate of use. And, though it falls away a little in the anti-panegyric, it still occurs more often there than in all but three of the main set of poets.

Figure 4 treats the infinitive particle **to** in precisely the same fashion. It makes up 1.42%, on average, of all the words in the main corpus – occurring a little over fourteen times in every thousand words. For Samuel Butler, it runs to more than twenty-two in every thousand while the corresponding rate for Shadwell, the lowest ranking of the twenty-five authors, is only a little over nine. This form of **to** occurs less than seven times in a thousand words of Hutchinson's shorter verse, and less than five times in a thousand of her Lucretius. The corresponding figures for the two parts of *Order and Disorder* lie on either side of nine per thousand, the higher of them still representing a slightly lower rate than Shadwell's. As with **which**, the rate of occurrence in the anti-panegyric is very close to Waller's.

The incidence of these two words in any text has large stylistic resonances, bearing, respectively, on the extent to which an important syntactic form and the more complex verbs are used. The frequent use of **which** usually reflects a given author's recourse to non-defining relative clauses, embedded within a sentence. (Where American writers enter into the case, however, **which** is often supplanted by **that** and relative clauses are usually appended.) The particle **to** is used, above all, in constructions where a speaker's attitude to an action is specified, as in **expect to**, **hope to**, **want to**, **fear to**, and the like. Although both **which** and **to** separate Lucy Hutchinson's authentic work from that of so many other poets, it would be unwise to suppose that their incidence, high for the former and low for the latter, is enough to distinguish everything she wrote from the work of other writers. But when large numbers of such 'authorial markers', both positive and negative, are brought together, they can constitute an authorial 'signature'.

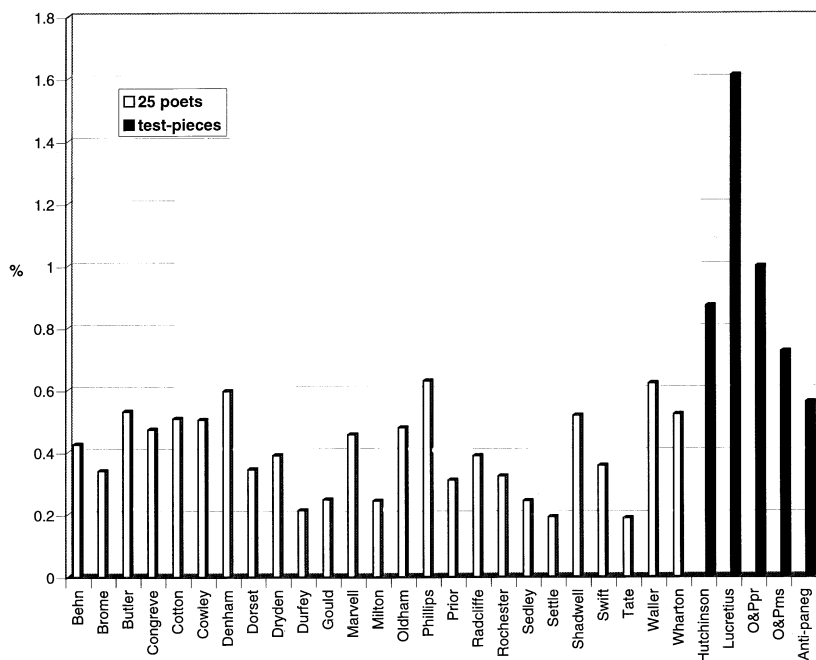


Figure 3 Frequencies, as percentages of whole sets, for the relative pronoun ‘which’

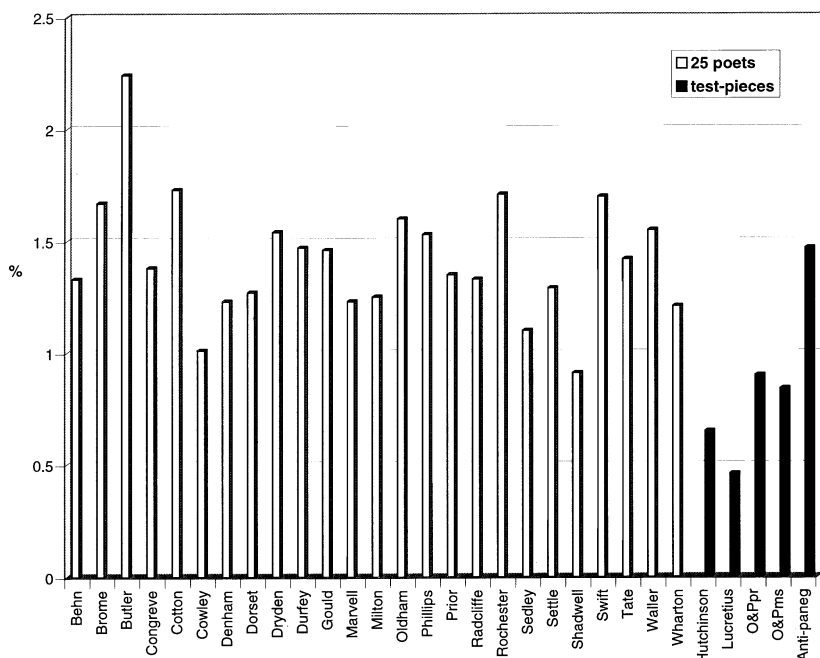


Figure 4 Frequencies, as percentages of whole sets, for the infinitive particle ‘to’

The fact that the Hutchinson entries in Figures 1b and 2a stand apart from the entries for the other twenty-five poets rests upon the fact that the ninety-nine most common words of our corpus do include many 'Hutchinson markers'. There are recognised statistical procedures for identifying significant variables and for assessing their levels of significance. Because our authorial sets are comparatively small, a simpler procedure is the safest. Let us set the percentage score for each of these ninety-nine words in Hutchinson's shorter verse against the ranked percentage scores for each of the other twenty-five poets. Let us regard those where her score ranks in either the top six or the bottom six – roughly the top and bottom quartiles – as 'Hutchinson markers' and see where these scores lead us.

Before putting our set of 'Hutchinson markers' into full service, let us enlarge it a little. By moving down the hierarchy of frequencies from ninety-nine words to one hundred and twenty, we reach those words that occur once in every thousand – once, roughly speaking, in one hundred and twenty lines of verse. This extension yields eleven more words where Lucy Hutchinson's shorter verse ranks within the top six or the bottom six poets.²⁰ Our full set of 'Hutchinson markers', therefore, comprises seventy-three words. Experience indicates that this is a rich enough set of variables to make up an 'authorial signature'.

Figure 5a shows the result of using these seventy-three variables to analyse an altered set of specimens. Closer and more powerful comparisons are effected and the rigour of the analysis is much increased by excluding thirteen of the twenty-five poets and two of the ten poems that were embraced in Figure 2a. The poets now excluded are those who differed most sharply and consistently from Hutchinson in a series of analyses. Oldham's two satires were excluded on the basis of their outlying positions to the north of Figure 2a. To focus on the broader question of authorship, Hutchinson's Lucretius and the anti-panegyric have, however, been restored. Figure 5a also differs from Figures 1b and 2a by virtue of the fact that the contrast between Hutchinson's shorter verse and the twelve remaining authorial sets is no longer unconstrained. By choosing marker words as variables, in the manner described, we effectively ensure that the entry for Hutchinson's shorter verse will diverge sharply from the other twelve authorial sets. (Corresponding sets of signature words can be used to isolate any of the other authorial entries from the main cluster.) Provided that this divergence is achieved, as here, the value of the exercise lies in studying the pattern assumed by all those entries whose location is not pre-determined. They remain free to 'choose their own neighbours' – to consort with such others as they most resemble.

Figure 5a, then, strengthens the case for supposing that the resemblance between Lucy Hutchinson's authentic work and the texts attributed to her by David Norbrook is neither adventitious nor the effect of some undetected cause. Eight of the ten test-pieces lie to the west of any member of the main

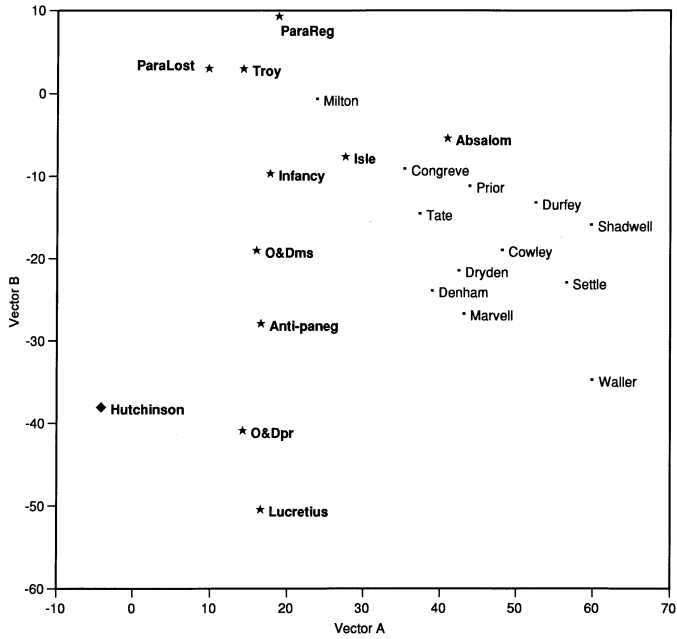


Figure 5a Twelve poets, Hutchinson, & ten test-pieces
(Text-plot based on 73 'Hutchinson markers')

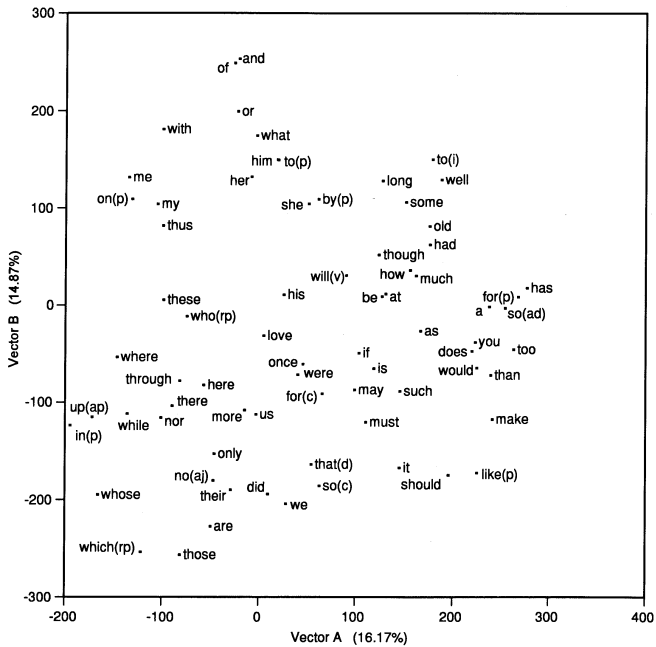


Figure 5b Twelve poets, Hutchinson, & ten test-pieces
(Word-plot for 73 'Hutchinson markers')

cluster, whose bounds extend just far enough to embrace *Absalom and Achitophel* and *A Voyage to the Isle of Love*. The true-Hutchinson and putative-Hutchinson entries form a loose south-westerly cluster, with the entry for *The World's Infancy* as their nearest neighbour. The entries for the three true epics lie together in the north-west. While the entry for the anti-panegyric lies far to the west of Waller on the horizontal axis, its position on the vertical axis is not far from his. The fact that the entry for Hutchinson's Lucretius now lies so much closer to the entry for her shorter verse indicates (as might be hoped but not assumed) that the set of marker words, in whose formation the Lucretius translation played no part, is governed more by authorship than by *genre*.

The patterning of the words in Figure 5b shows a close overall resemblance to Figures 1a and 2b. This is most evident at the extremities of the three plots: in the location of **which** and **those** and the demonstrative **that** in Hutchinson's territory and, equally, in the location of **some**, **a**, the preposition **for**, and the infinitive **to** in the north-eastern territory most remote from hers. But the altered set of specimens makes for some changes in these word-plots. The exclusion of Rochester's circle has allowed **she** and **her** to move to the north-west, where Milton's Eve and Dryden's Hecuba and Venus now make principal points of reference. **Him**, **his**, **me**, and **my** have also moved to the north-west. The former pair show the attention given, in the epics, to Milton's God and Adam, Dryden's Priam, and an array of Trojan heroes and Greek villains. The latter pair show that dialogue makes a large part of the epics. The exclusion of Brome, Gould, and Phillips allows **we**, **us**, and **are** to move with Hutchinson's Lucretius into the south-western corner, where it is carried by its recourse to many of Hutchinson's marker words, less volatile than these.

As a final, even more stringent test of Hutchinson's authorship, one can examine the way texts subdivided into segments cluster together on principal components. In this form, there is a vastly increased potential for variation within a text to scatter segments according to transitory affinities of subject matter, *genre*, forms of address, and so on.

Figures 6a and 6b derive from an analysis of fifty-six specimens.²¹ Of these only entry V (the shorter verse known to be by Hutchinson) participated in the selection of our seventy-three marker-words. (The twenty-five authorial sets which helped to frame that selection have all been excluded, as have *Absalom and Achitophel* and *A Voyage to the Isle of Love*, the least Hutchinson-like of the single texts included in Figure 5a.) Apart from entry V, the other fifty-five specimens are left free to choose their own neighbours. Figure 6a shows that when they do so, all those whose authorship is known dispose themselves on authorial lines. In Figure 6a the entries for Hutchinson's Lucretius and her shorter verse, now labelled U and V respectively, lie in close proximity to each other.

Of the Milton-entries, which lie in the south-east, those marked L are for our three-hundred-line excerpts from the twelve books of *Paradise Lost*. (In most common verse-forms, three hundred lines comprise about 2200

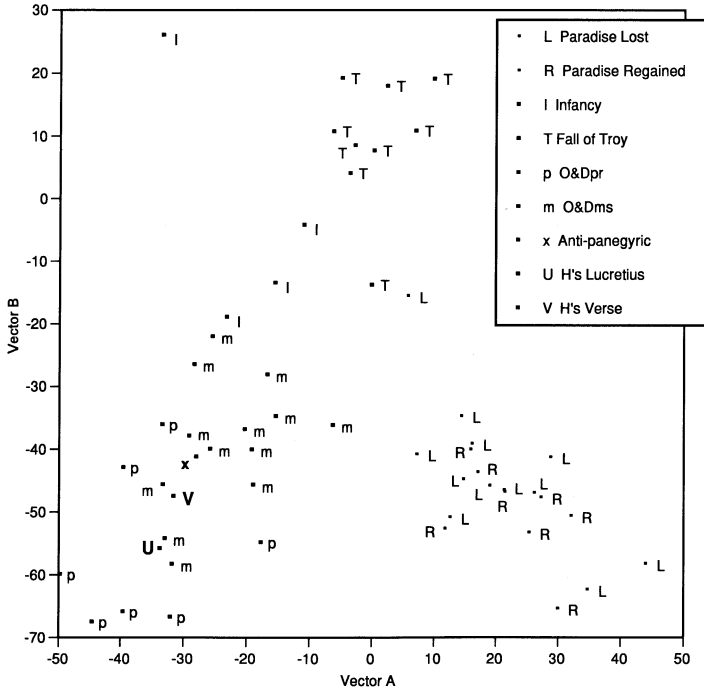


Figure 6a Hutchinson & fifty-five test-segments
(Text-plot for 73 'Hutchinson markers')

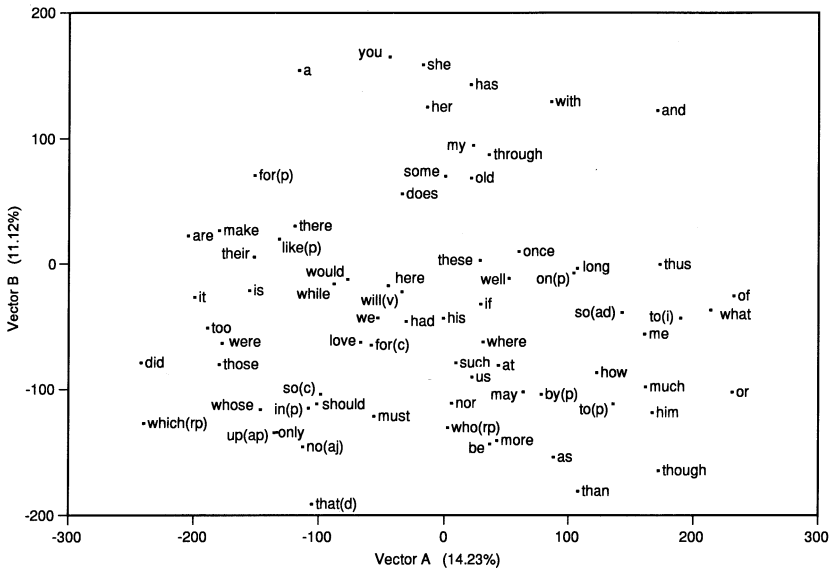


Figure 6b Hutchinson & fifty-five test-segments
(Word-plot for 73 'Hutchinson markers')

words.) Mixed in among these twelve entries are another eight marked **R**. They represent successive segments, of two thousand words apiece, from *Paradise Regained*. The northerly outlier of this cluster, located beside the most southerly of the **T**s, comes from Book Seven of *Paradise Lost* where Raphael tells Adam what was done on each day of the Creation. This catalogue of creatures differs sufficiently from the rest of Milton's epics to stand apart – but not so far apart as to enter another cluster.

The nine Dryden entries, marked **T**, represent successive two-thousand-word segments of his translation of the opening books of Virgil's *Aeneid*, centred upon the fall of Troy. These make a well-knit cluster with a single, more southerly outlier. The outlying entry covers that part of Book Two where narrative gives way to a long catalogue of Trojan deaths. It begins as the Greeks leave the wooden horse and ends with the entry of Pyrrhus, after which the normal rhythm of the narrative resumes.

The four entries for Billingsley's *The World's Infancy*, marked **I**, represent successive segments of two thousand words. Three lie close to each other and cover the first six days of the Creation, yet another – an especially stilted – catalogue of creatures. The fourth **I**, located in the north-west, begins with the creation of Eve and is set apart by the poem's only extensive passages of dialogue as events move on to the Fall of Man and its unhappy aftermath.

By inference from these three authorial clusters and from its own particular pattern, it is highly likely that the fourth cluster is also authorial and that Lucy Hutchinson is the author. The entries marked **U** and **V** are known to be hers. The entry marked **x** is for the anti-panegyric. The other twenty entries, seven **ps** and thirteen **ms**, represent our three-hundred-line samples of *Order and Disorder*, from the printed and unprinted cantos respectively. The way these twenty-one entries intermingle in a penumbra surrounding the **U** and **V** is as strong a corroboration of David Norbrook's hypothesis about their authorship as computational stylistics, in its present stage of development, can offer.

The notion that its simulation of Waller's panegyric might leave indelible stylistic traces on the anti-panegyric is tested in Figure 5a, where a residual likeness to Waller does indeed appear on the vertical axis. But its westerly location on the horizontal axis of that figure and its proximity to **V** and **U** in Figure 6a suggest that Hutchinson's authorship is the overriding influence.

Nothing in our whole series of tests supports the idea that *Order and Disorder* is the work of anyone but Lucy Hutchinson. This evidence culminates in Figure 6a. The effect of these tests, moreover, is not merely to eliminate a set of twenty-five poets who are already known not to be the author of this work. The increasing rigour of the tests almost extinguishes the possibility that a poet not included here might resemble her so closely as to force a way into the heart of her territory and undermine our inferences. Similar research on the work of other sets of literary siblings gives no reason to believe that Sir Allen Apsley was more likely than his contemporaries to write like his sister.²² Although statistical analysis yields inferences, not certainties, and can

never demonstrate that anything is impossible, a man like Apsley might safely bet against himself in this particular contest and a woman like his sister need scarce detect a gamble.

The significance of the outcome

In the statistical work illustrated in the figures, Hutchinson appears as an equal member of a mixed set of poets, including writers from within the canon (like Milton) and others, outside it by almost any definition (like Billingsley). Here computational stylistics fulfils one at least of the expressed ideals of those who would wish to revise this same canon, in beginning from analyses of the texts which take no account of gender, class or ideology. If, as Findley and Hobby argue, the exclusion of women's writing from the literary curriculum has been based on aesthetic criteria 'which are gender, as well as race and class based',²³ then computational stylistics (in its first stages at least) has the advantage of being innocent of such biases. Hobby says she was repeatedly asked while working on mid-seventeenth-century women writers whether they were 'any good'; she notes that all sorts of problematical assumptions lie behind such questions.²⁴ These dimensions are entirely ignored in deriving principal components, or finding word-variables which are 'markers' of Lucy Hutchinson's style. Proponents of Hutchinson's claims to attention may welcome the fact that in this sort of analysis Hutchinson's writing can escape from its double handicap of being the work of a woman and a Republican.

On the other hand, statistical work of this kind does not provide any basis at all for creating a canon, for establishing preferences or creating new hierarchies. Norbrook argues for Hutchinson's work as 'powerful' where it challenges Royalist iconographical systems.²⁵ He accepts that the style of *Order and Disorder* is 'diffuse and repetitive' next to Milton's, that there is no dynamic and shapely manipulation of chronology to make an epic outline like his, yet he argues for a deep affinity in terms of a millennial vision, passages of prophetic denunciation, and faith in an approaching restoration that will expose the falsity of the dynastic Restoration under whose disheartening aegis both poems were written.²⁶ De Quehen, the editor of the Lucretius translation, makes a plea for Hutchinson's anti-Augustan, run-on and metrically varied verse schemes – she is on the side that was the loser in the 'Battle of the Couplets' – and argues that readers should not think that because Pope exudes confidence and flamboyant metrical mastery, and Hutchinson (in the preface to the Lucretius translation at least) is self-deprecating, that one is always artistic, the other prone to clumsiness.²⁷ The present study offers no support for these vigorous assertions, nor for their contraries. It is conceivable that a divide between royalist and republican ideologies in the texts analysed leaves traces in style which might be detectable by these methods, or that some

dimensions of the poems' styles in common-words terms relate to what commentators single out as the expressive or affective power of texts. Each would require a highly specific study, and there is no encouragement in the present one to undertake such work. We may return to Figure 1b to be reminded of what has emerged here: without any selection of variables or texts beyond the initial decisions to count the ninety-nine most common words in twenty-five poets and in Hutchinson, a difference in styles which can best be ascribed to authorship is found to be the strongest. *Order and Disorder* and the anti-Waller poem lie to Hutchinson's side of this continuum. The strong manuscript and biographical evidence presented by Norbrook in favour of Hutchinson's authorship of these poems is thus complemented by an entirely independent kind of test.

Something has already been said about the alteration in Hutchinson's canon which follows from accepting these attributions. Her work begins to take on a considerable variety and a marked polemical intensity: she translated an atheistical classical treatise; she expressed resistance to the cult of poetic adulation surrounding Cromwell in the 1650s; she wrote the Calvinistic and Republican prose *Memoirs*; the *Elegies* take up the personal anguish of the loss of her Puritan saint of a husband; and *Order and Disorder* conveys a vision of human history under the light of a passionate millenarianism, with associated anti-courtly attitudes. Norbrook also gathers evidence of a Calvinistic understanding of the nature of representation itself in her work, linked to the same iconoclasm which in Colonel Hutchinson took violent physical form.²⁸ In the case of *Order and Disorder*, much the more significant of the two cases under special consideration here, computational stylistics cannot contribute directly in the debate as to whether the voice of its Eve should be heard alongside, or even instead of, the Eve of *Paradise Lost*. It does, however, support the idea that this particular Eve was the creation of a woman writer, a writer whose celebrated memoir of her husband should be recognised as just part of her complex engagement with the literary, philosophical, political, and religious culture of the times.

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Notes

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1 David Norbrook, 'A devine Originall: Lucy Hutchinson and the "woman's version"', *Times Literary Supplement*, 19 March 1999, 13–15; 'Lucy Hutchinson

- and *Order and Disorder: The Manuscript Evidence*, *English Manuscript Studies 1100–1700*, 9 (2000), 257–91; and ‘Lucy Hutchinson versus Edmund Waller: An Unpublished Reply to Waller’s “A Panegyrick to my Lord Protector”’, *The Seventeenth Century*, 11 (1996), 61–86. See also Lucy Hutchinson, *Order and Disorder*, ed. David Norbrook (Oxford, 2000) (published since the completion of this essay).
- 2 Beinecke Library, Ms Osborn fb.100.
 - 3 British Library, Additional MS 17,018, fols 213–17, printed in Norbrook, ‘Lucy Hutchinson versus Edmund Waller’.
 - 4 *Lucy Hutchinson’s Translation of Lucretius: ‘De rerum natura’*, ed. Hugh de Quehen (London, 1996).
 - 5 Sandra Findley and Elaine Hobby, ‘Seventeenth-century Women’s Autobiography’, 1642: *Literature and Power in the Seventeenth Century*, ed. Francis Barker, Jay Bernstein, John Coombes, Peter Hulme, Jennifer Stone and Jon Stratton (Colchester, 1981), p. 26; cf. the comment on women’s autobiographies on p. 13.
 - 6 *Memoirs of the Life of Colonel Hutchinson*, ed. James Sutherland (London, 1973), pp. 32–3.
 - 7 “‘The Colonel’s Shadow’: Lucy Hutchinson, Women’s Writing and the Civil War’, in Thomas Healey and Jonathan Sawday (eds), *Literature and the English Civil War* (Cambridge, 1990), pp. 227–47.
 - 8 The present corpus of 540,244 words ranges widely across the work of the following twenty-five poets, who wrote mainly in the Civil War and Restoration periods: Aphra Behn (1640–89) 21,705 words; Alexander Brome (1620–66) 29,539; Samuel Butler (1612–80) 30,932; William Congreve (1670–1729) 30,917; Charles Cotton (1630–87) 12,625; Abraham Cowley (1618–67) 19,272; Sir John Denham (1615–69) 30,092; Charles Sackville, Earl of Dorset (1638–1706) 9,586; John Dryden (1631–1700) 18,238; Thomas D’Urfey (1653–1723), 18,757; Robert Gould (1660?–1709?) 29,110; Andrew Marvell (1621–78) 23,282; John Milton (1608–74) 18,924; John Oldham (1653–83) 32,462; Katherine Phillips (1631–64) 29,004; Matthew Prior (1664–1721) 32,000; Alexander Radcliffe (floruit 1669–96) 11,889; John Wilmot, Earl of Rochester (1648–80) 12,725; Sir Charles Sedley (1639?–1701) 10,304; Elkanah Settle (1648–1724) 24,080; Thomas Shadwell (1642?–92) 14,540; Jonathan Swift (1667–1745) 30,974; Nahum Tate (1652–1715) 20,333; Edmund Waller (1606–87) 16,443; Anne Wharton (1659–85) 12,511. Most of the corpus was prepared by John Burrows and Harold Love, assisted by Alexis Antonia and Meredith Sherlock. The Marvell set was contributed by Christopher Wortham.
 - 9 The electronic version of Cantos 6–20 was prepared with the permission of the Osborn Collection, Beinecke Library, Yale University.
 - 10 Donald W. Foster, *Elegy by W. S.: A Study in Attribution* (Newark, New Jersey, 1989) and ‘A Funeral Elegy: W[illiam] S[hakespeare]’s “Best-speaking Witnesses”’, *PMLA*, 111 (1996), 1080–95.
 - 11 MacDonald P. Jackson, ‘Editions and Textual Studies’, *Shakespeare Survey*, 43 (1991), 255–70, and Ward E. Y. Elliott and Robert J. Valenza, ‘Glass Slippers and Seven-League Boots: C-Prompted Doubts about Ascribing A Funeral Elegy and A Lover’s Complaint to Shakespeare’, *Shakespeare Quarterly*, 48 (1997), 177–207.
 - 12 Stanley Wells, ‘In Memory of Master William Peter: The Difficulties of Attributing “A Funeral Elegy” to Shakespeare’, *Times Literary Supplement*, 26 January

- 1996, 28, and Brian Vickers, 'Whose Thumbprints?', *Times Literary Supplement*, 8 March 1996, 16–18.
- 13 Noel B. Reynolds and Arlene W. Saxonhouse (eds), Thomas Hobbes, *Three Discourses: A Critical Modern Edition of Newly Identified Work of the Young Hobbes* (Chicago, 1995).
- 14 Fiona J. Tweedie, David I. Holmes, and Thomas N. Corns, 'The Provenance of *De Doctrina Christiana*, Attributed to John Milton: A Statistical Investigation', *Literary and Linguistic Computing*, 13 (1998), 77–87; John Burrows and Harold Love, 'The Role of Stylistics in Attribution: Thomas Shadwell and "The Giants' War"', *Eighteenth Century Life*, 22 (1998), 18–30; and Burrows, 'A Computational Approach to the Rochester Canon', Appendix, in Harold Love (ed), *The Complete Works of John Wilmot, Earl of Rochester* (Oxford, 1999), pp. 681–95.
- 15 M. W. A. Smith, 'Attribution by Statistics: A Critique of Four Recent Studies', *Revue informatique et statistique dans les sciences humaines*, 26 (1990), 233–51; D. I. Holmes and R. S. Forsyth, 'The Federalist revisited: New Directions in Authorship Attribution', *Literary and Linguistic Computing*, 10 (1995), 111–27.
- 16 David I. Holmes, 'The Evolution of Stylometry in Humanities Scholarship', *Literary and Linguistic Computing*, 13 (1998), 114.
- 17 This procedure is described in detail in J. F. Burrows and D. H. Craig, 'Lyrical Drama and the "Turbid Mountebanks": Styles of Dialogue in Romantic and Renaissance Tragedy', *Computers and the Humanities*, 28 (1994), 63–86.
- 18 The top ninety-nine words of the main corpus are as follows: the, and, of, a, to (infinitive particle), in (preposition), his, with, to (preposition), is, but, he, all, I, it, as, their, her, not, be, you, they, for (preposition), by (preposition), my, we, from, that (relative pronoun), or, our, thy, was, this, when, are, your, at, which (relative pronoun), no (adjective), what, so (adverb of degree), that (demonstrative), will (verb), on (preposition), can, have, she, thou, more, if, did, would, now, who (relative pronoun), that (conjunction), yet, had, then, such, him, nor, for (conjunction), like (preposition), love, than, may, shall, me, were, great, there, some, too, how, does, one, never, them, do, should, though, let, make, could, those, must, an, where, still, us, here, own, thee, made, has, see, these, before, thus.
- 19 In the order indicated, these specimens are: Nicholas Billingsley's *The World's Infancy* (1658); Milton's *Paradise Lost* and *Paradise Regained*; Dryden's translation of *Aeneid* I–III; Dryden's *Absalom and Achitophel*; Oldham's translations of Juvenal's third satire and of Boileau's eighth; and Aphra Behn's *A Voyage to the Isle of Love*.
- 20 For each of the Hutchinson markers below, the rank in the whole list of 120 is given first, then the word, and then a numeral in parenthesis showing where the word-count for Hutchinson's shorter verse ranks in frequency in the full list of twenty-six, formed by adding her counts to those of the twenty-five others. Hence: 2 and (23); 3 of (23); 4 a (24); 5 to (infinitive particle) (26); 6 in (preposition) (1); 7 his (2); 8 with (22); 9 to (preposition) (21); 10 is (22); 15 it (25); 16 as (26); 17 their (4); 18 her (24); 20 be (26); 21 you (26); 23 for (preposition) (26); 24 by (preposition) (26); 25 my (4); 26 we (22); 29 or (26); 35 are (6); 37 at (26); 38 which (relative pronoun) (1); 39 no (adjective) (1); 40 what (26); 41 so (adverb of degree) (23); 42 that (demonstrative) (4); 43 will (verb) (26); 44 on (preposition) (5); 47 she (26); 49 more (1); 50 if (26); 51 did (1); 52 would (25); 54 who (relative pronoun) (4); 57 had (24); 59 such (25); 60 him (5); 61 nor (2);

- 62 for (conjunction) (24); 63 like (preposition) (22); 64 love (5); 65 than (24); 66 may (25); 68 me (2); 69 were (2); 71 there (6); 72 some (26); 73 too (26); 74 how (26); 75 does (26); 80 should (26); 81 though (26); 83 make (26); 85 those (1); 86 must (26); 88 where (1); 90 us (23); 91 here (1); 95 has (26); 97 these (5); 99 thus (22); 104 whose (1); 107 much (26); 109 while (1); 110 so (conjunction) (25); 111 well (26); 113 only (3); 114 long (26); 115 old (23); 117 once (1); 118 through (2); 119 up (adverbial particle) (2).
- 21 The percentage counts used for this part of the analysis – those for seventy-three word-variables in fifty-six segments – are available as a table at <<http://www.newcastle.edu.au/department/lc/appendices.html>>. Readers who wish to do so may reproduce the principal component scores from these counts.
- 22 For an analysis of stylistic differences between Henry and Sarah Fielding, see J. F. Burrows and A. J. Hassall, 'Anna Boleyn and the Authenticity of Fielding's Feminine Narratives', *Eighteenth-Century Studies*, 21 (1988), 427–53. For similar work on the Brontë sisters, see J. F. Burrows, 'Not unless you ask nicely: the Interpretative Nexus between Analysis and Information', *Literary and Linguistic Computing*, 7 (1992), 91–109.
- 23 Findley and Hobby, 'Seventeenth-century Women's Autobiography', p. 11.
- 24 Hobby, *Virtue of Necessity: English Women's Writing 1646–1688* (London, 1988), p. 25.
- 25 Norbrook, 'Lucy Hutchinson's "Elegies" and the Situation of the Republican Woman Writer (with text)', *English Literary Renaissance*, 27 (1997), 475.
- 26 Norbrook, 'A devine Originall', p. 15.
- 27 De Quehen, 'Ease and Flow in Lucy Hutchinson's Lucretius', *Studies in Philology*, 93 (1996), 288–303.
- 28 Norbrook, 'Lucy Hutchinson's "Elegies"', pp. 471–6.

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