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## Stylometry

edited by<br>Hugh Craig

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## Editor's Note

Hugh Craig

Stylometry is the application of quantitative methods to the differentiation of literary language. It owes its potential for insight, as well as its tendency to attract controversy, to its combination of two fundamentally contrasting disciplines, the statistical and the literary.

Stylometry is by no means a recent invention - the Polish philosopher Wincenty Lutosławski first proposed the term "stylométrie" in the 1890s - but it is still not accepted as wellfounded and useful in all quarters of literary studies. It is now hard to be ignorant of its existence, however, given the volume of published stylometric studies, these days exclusively done with a computer.

Shakespeare has been a particular focus for stylometry, principally, but not only, in questions of attribution. To cite just one example, The New Oxford Shakespeare, which started appearing in

2016, offers a root-and-branch reassessment of the canon based on stylometry. The accumulation of published stylometric findings on Shakespeare, in the Oxford volumes and elsewhere, has in its turn called forth a considerable amount of critique, theoretical, methodological, and practical.

This all suggests that now is a good moment to collect some stylometric essays for readers of Memoria di Shakespeare. A Journal of Shakespearean Studies, and I congratulate the editors of the journal for their decision to commission this special issue on the topic. I hope readers will agree that the collection that has resulted helpfully reflects the current situation, where stylometry can point to achievements, and is no longer a novelty, but has not escaped trenchant criticism either. The essays cover critique in which the critic engages closely with the practices under investigation; practice, in a full awareness of the penumbra of negative commentary that now surrounds stylometry, with an understanding of what it can do well and what falls outside its remit; well-informed and duly sceptical application of the findings of stylometry to literary history; theorisation balancing deep familiarity with the discipline of literary study and with the contours of the new practice; and exposition of a method with due attention to the technically straightforward but theoretically contested intersection of language and computation.

We start with Giuliano Pascucci's account of building phylogenetic trees with Shakespeare fragments using a compression algorithm - a careful exposition which shows the workings of a stylometric method step by step. We go on to Jonathan P. Lamb's framing of stylometry in terms of a much older term, "philology", the two approaches linked by the idea of looking at language 'prior to meaning', with a demonstration of practice. Then Jakob Ladegaard and Ross Deans Kristensen-McLachlan present some more stylometric findings, on the peculiarities of the spoken dialogue of bastards. Edward Pechter discusses a key question about the capabilities of stylometry, and examines the limitations of the "style" that it can claim to measure. Finally, authorship attribution meets theatre history in Roslyn L. Knutson's consideration of how theater historians might deal with the implications of some of the recent findings about authorship.

At its best, stylometry offers genuine innovation: propositions that are surprising and (strictly in their own terms) true. It can usefully be understood in terms of challenges to interpretation. Here is a claim, here are its intellectual and methodological underpinnings. Now let it prosper or wither in the court of scholarly opinion - gain or lose plausibility and importance, through parallel work in related areas, or further thought about how the numbers relate to meaning. This in its turn raises wider questions about technology and human values which have become urgent in the digital age. I think the essays that follow are valuable contributions to this discussion, which I feel is one of the most important of our time, in Shakespeare studies and beyond.

# Shakespeare on the Tree (2.0) 

Giuliano Pascucci

In the present paper, a phylogeny of Shakespeare's plays has been created following a procedure used in biology to pinpoint filiation or similarity relationships among species or individuals thereof. After explaining the methods and procedures followed, the essay will deal with how the plays are distributed or clustered on the final phylogenetic tree thus obtained. In the last section of this article, a few among the most apparently significant clusters will be taken into account and discussed in order to consider whether they may raise observations, elicit comments, reinforce or debunk any given understanding of Shakespeare's theatrical production. For reasons of space and given the size of the phylogeny yielded by this research, not all the clusters obtained will be analysed. However, the number of examples provided should suffice to show how and to what purposes a phylogeny of Shakespeare's or any other author's works can be used.

## 1. Using DNA to Build Textual Phylogenies

The attempt to group literary texts in family trees is not new. It is, in fact, the main aim of ecdotics. Moving from "the principle that 'a community of error implies a unity of origin', the critics determine the relations among the extant manuscripts, so as to place them in a family tree" (Canettieri et al. 2005, sec. 1). However, the kind of trees here created are of a different nature. The four examples included in this essay do not represent the history of a single text, rather a number of Shakespearean plays synchronically represented as the leaves at the far end of the trees' branches. As in any other type of phylogeny, all instances grouped into a cluster share a similar degree of kinship.

Unlike computational linguistics methods, which sometimes focus on occurrence, frequency and distribution of terms, Shakespeare's plays are considered here as complex sequences of characters showing patterns that can be extrapolated and investigated, just as well as DNA strings. However, contrary to DNA strings, which only comprise different combinations of the four letters marking nitrogen bases, a literary text is a more complex object and the strings of characters it comprises include spaces between words, punctuation, paragraphs, capital letters and so forth.

This work is inspired by a project developed by Dario Benedetto, Emanuele Caglioti and Vittorio Loreto, researchers at Sapienza University of Rome. In 2002 they presented an automatic procedure meant to solve textual issues such as language recognition, authorship attribution and language classification (Benedetto, Caglioti, and Loreto 2002, 048702). Their method was based on Information Theory and successfully classified texts according to author, language or content. In view of these results, they created phylogenies such as those used in biology to study evolution through filiation, remoteness (similarity) or other types of relationships among species ${ }^{1}$.

[^0]It was not the first time that genetics and linguistics overlapped. A solid interconnection had been established a few years before by David B. Searls in a paper dating back to 1997, in which he wondered, among other things, "whether the techniques used in analyzing other kinds of languages, such as human and computer languages, can in fact be of any use in tackling problems in molecular biology" (Searls 1997, 333).

Nowadays the parallel between the genetic code and language has become intuitive. Expanding the analogy, one could say that the genetic code is the language in which a text is written; DNA is the way in which sentences are arranged and structure the text; genes are sequences of characters whose combination makes a text unique and somehow recognisable. In molecular biology and genetics, remoteness and similarity between species are accounted for by the number of DNA strings they share; the same occurs with texts.

In the field of textual criticism, rare words or hapax legomena allow scholars to make meaningful inferences about the texts investigated; however, redundancy is nevertheless essential to discover similarities.

In this light, Maurizio Lana has reinvigorated the analogy between biology and linguistics claiming that style is "the unique combination of genetic elements, namely formal traits, characterising the writings of an author or a corpus of texts [...] either generally or at a given time [...]" (Lana 1996, 36, my translation). In the scholar's opinion, redundancy defines style,

[^1]which consists in "the entirety of the criteria which make the communicative model adopted by an author unique and unmistakable" (35, my translation).

According to the above analogy, the present paper illustrates a method to plot Shakespeare's theatrical corpus on a tree-shaped graph. In order to create this graph, the first step is to extrapolate character strings common to different works; then the linguistic remoteness between texts is computed using Benedetto, Caglioti and Loreto's method. The distances thus obtained are subsequently used to create a distance matrix, which will later serve to create phylogenetic trees (see See the Trees appended to the end of this article).

From Darwin onwards, phylogenies have been seminal in the study of evolution. They have proved remarkably accurate in foreseeing viruses' mutations, thereby allowing, for example, exact predictions on what types of influenza one should expect the next year. However, a tree plotting a literary corpus cannot be interpreted in the same way as those accounting for the evolution of animal species. In animals and micro-organisms, changes occur over time when genetic material is vertically transferred, i.e. handed down from a common ancestor to its offspring. In addition, horizontal transfer of genetic material is also possible, for example when a virus hosted in one bacterium penetrates another, thus bringing alien DNA fragments into the new host.

In writing, two mechanisms embody a horizontal transfer. The first is when an author is writing two or more texts at the same time or at almost the same time. In this case the author will probably mark both texts with a few key words, sentences or linguistic patterns either consciously or unconsciously stored in his memory. The second, much more challenging in the present case study, is when two authors pour the above linguistic patterns into a text they are writing in collaboration.

## 2. Building a Base for Phylogenies

Phylogenetic trees consist in branches joined by nodes, namely taxonomic units.


Fig. 1

At the tip of the bifurcating branches springing from each node, there are pairs of leaves representing couples of taxa. Only one taxon per leaf is allowed. When the nodes follow, or point to, a temporal order, the graph is usually rooted and is defined as a phylogenetic tree. When the graph is only meant to illustrate the relationship between taxa, it is unrooted and called a cladogram. In both cases empty leaves are not allowed.

A tree entailing a temporal order, that is a diachronic representation of a text, is particularly suitable when one wants to account for a text's variants, witnesses or collateral manuscripts. Such a tool may lead to the identification or recreation of a common ancestor, namely an Ur-text. Even when there is no common ancestor, a phylogenetic tree will be a paramount tool to illustrate the relationships between the above elements. However, as already mentioned, such research would fall within the scope of stemmatics or ecdotics. One of the main aims of the present paper is instead the synchronic representation of Shakespeare's plays, one that accounts for some degree of similarity or kinship they may bear. As unrooted as they are, cladograms are particularly suitable for this kind of grouping, in that they do not suggest the existence of any single ancestor from which all the others originate.

In other words, cladograms are alien to the metaphysics of origin, and to historical categories such as chronologies. They only illustrate similarities and show pairs of very close relatives on a tree. They are not based on a timeline, nor can they contribute to creating one.

Therefore, even if it is possible to admit that works by the same author may bear some resemblance because they were written around the same time or during a short span of time in which the author's style or linguistic habits had not undergone substantial revision or change, a cladogram will not be able to pinpoint that precise moment in the author's biography.

In terms of genetics, phylogenies are built by measuring the remoteness between two instances, regardless of an original ancestor, whose existence, represented by a root common to all the plotted species, can only be postulated in retrospect ( $a$ posteriori). The distance between two species or two members of the same species can intuitively be measured counting the differences they show when their DNAs are compared. Once differences have been pointed out and counted, it is possible to create a distance matrix, a numerical representation of such distances, on which the phylogeny will be subsequently built.

For the sake of clarity and brevity, let's analyse five made-up chunks of DNA belonging to the same gene as it appears in five different species: Bonnacon, Parandrus, Monoceros, Hydrus and Crocotta ${ }^{2}$.

1) GTCATGGTGCTTG (Bonnacon)
2) GATCAAGAGGCCA (Parandrus)
3) GTCATCGTGCGGT (Monoceros)
4) GTTCAAAGGGTTG (Hydrus)
5) GTGAAAGTGGATT (Crocotta)

These are the aligned sequences of the five DNA chunks.
As already mentioned, the first step towards the creation of a cladogram consists in creating a matrix accounting for the differences between species. The process is usually carried out in a pairwise fashion.

In this mock case study, we will start by measuring string 1 and 2, namely Bonnacon and Parandrus. The pair shows ten

[^2]differences (highlighted characters) eventually reported on a chart.

1) GTCATGGTGCTTG (Bonnacon)
2) GATCAAGAGGCCA (Parandrus)

|  | BONNACON | PARANDRUS | MONOCEROS | HYDRUS | CROCOTTA |
| :--- | :--- | :---: | :---: | :--- | :--- |
| BONNACON |  | 10 |  |  |  |
| PARANDRUS |  |  |  |  |  |
| MONOCEROS |  |  |  |  |  |
| HYDRUS |  |  |  |  |  |
| CROCOTTA |  |  |  |  |  |

Fig. 2

The next step will consist in detecting the differences between sequence 1 and 3 :

1) GTCATGGTGCTTG (Bonnacon)
2) GTCATCGTGCGGT (Monoceros)

Here it is possible to detect four differences. Again, the number is used to fill out the above chart, which, after this second count, will look like this:

|  | BONNACON | PARANDRUS | MONOCEROS | HYDRUS | CROCOTTA |
| :--- | :---: | :---: | :---: | :--- | :--- |
| BONNACON |  | 10 | 4 |  |  |
| PARANDRUS |  |  |  |  |  |
| MONOCEROS |  |  |  |  |  |
| HYDRUS |  |  |  |  |  |
| CROCOTTA |  |  |  |  |  |

Fig. 3
The procedure is repeated measuring the distance between strings 1-4, 1-5 (respectively Bonnacon-Hydrus, BonnaconCrocotta), 2-3, 2-4, 2-5 and so on, until all distances have been measured and the whole chart has been filled.

After all the distances between all the possible combinations of pairs have been computed, the chart will appear as follows:

|  | BONNACON | PARANDRUS | MONOCEROS | HYDRUS | CROCOTTA |
| :--- | :---: | :---: | :---: | :---: | :---: |
| BONNACON |  | 10 | 4 | 7 | 6 |
| PARANDRUS |  |  | 10 | 6 | 8 |
| MONOCEROS |  |  |  | 10 | 6 |
| HYDRUS |  |  |  |  | 6 |
| CROCOTTA |  |  |  |  |  |

Fig. 4
Once again, it is necessary to proceed pairwise and observe that in the first line the species showing the least number of differences are those forming the couple Bonnacon-Monoceros. Building the cladogram will therefore begin by representing the proximity of these two taxa.


Fig. 5
One rather simple way to proceed in the creation of the cladogram, thus adding new branches, is to create a new chart in which the single specimens just paired are replaced by the pair itself. This allows to compute the average distances between the couple and the remaining specimens. The new chart will therefore appear as follows:

|  | BONNACON-MONOCEROS | PARANDRUS | HYDRUS | CROCOTTA |
| :--- | :---: | :---: | :---: | :---: |
| BONNACON-MONOCEROS |  | $\mathbf{1 0}$ | $\mathbf{8 . 5}$ | $\mathbf{6}$ |
| PARANDRUS |  |  | $\ldots$ | $\ldots$ |
| MONOCEROS |  |  | $\ldots$ | $\ldots$ |
| HYDRUS |  |  |  | $\ldots$ |
| CROCOTTA |  |  |  |  |

Fig. 6
Because the distance from the Bonnacon to the Parandrus is 10 and the distance from the Monoceros to the Parandrus is once again 10, the average distance between the new couple and the Parandrus will be 10. Eventually, after repeating the procedure
and filling up the chart, one will wind up with a tree like the following.


Fig. 7

In the above graph, the relative closeness between the Bonnacon and the Monoceros is visually illustrated and easy to grasp.

Building a tree can be based on two different methods usually defined as distance-based and character-based. The main difference between them is that character-based methods use the aligned sequences directly in the construction of the trees, whereas distance-based methods, one of which has been herein used, first transform the aligned data into distances, then use such values, completely disregarding the initial character sequences. In particular, distance-based procedures can resort to the neighbourjoining method, to a weighted least squares method (FitchMargoliash) or to the Unweighted Pair Group Method with Arithmetic mean, also known as UPGMA.

Explaining the theories that lie behind these is not the aim of this paper, nor is the illustration of the mechanisms behind the tree-building algorithms that these approaches utilise ${ }^{3}$.

For the purpose of this paper suffice to say that the present research falls within the framework of distance-based methods and that trees have been built at first using the Fitch-Margoliash method, then using the neighbour-joining method, one that

[^3]requires a shorter running time and is therefore best suited for large datasets. Simply put, the algorithm implemented in the neighbour-joining method follows the steps in distance matrix creation described above. Starting from the first pair of closest taxa, it creates a node joining them. It then calculates the distance of the rest of the taxa from the newly created node, thereby creating a new node and repeating the procedure until all taxa have been dealt with.

## 3. How to Read a Phylogenetic Tree

The reading of a phylogenetic tree starts from its root, if present.


Fig. 8

Reading from the root towards the tips of the tree, where taxa (A and B) are located in the above example, means moving forwards in time. The longer the branches the longer the span of time separating an ancestor from its descendants. However, as already mentioned, cladograms are unrooted trees in which the length of branches does not account for the span of time a species needs to spring from a previous one. Their length only depends on the best possible branch disposition found by the tree-building algorithm.


Fig. 9

The point where the branch bifurcation occurs represents a speciation (A and B in Figure 9), the event through which a single ancestral lineage originates two daughter lineages.


Fig. 10

Figure 10 is an example of a more populated tree. The remoteness between taxa is not a notion that can be derived from reading specimens $\mathrm{A}, \mathrm{B}, \mathrm{C}$, etc. vertically. Trees, cladograms or any other phylogeny can be oriented top to bottom and vice versa or left to right and vice versa. In order to understand remoteness between species or individuals, it is instead necessary to identify lineages. These usually have a history that is partly shared with other specimens, partly unique.

Figure 11 illustrates taxa C and D as closely related, although each taxon has its own individual development from Z (as is shown by the differently drawn branches). Going further back from $Z$ to $Y$, their lineages reunite in a common line.


Fig. 11

Contrarily, although $D$ appears equally distant from $C$ and $E$, $D$ and $E$ are not equally related as $C$ to $D$. $C$ and $D$ are in fact the offspring of $Z$, which is not the ancestor of $E$.

In the reading of an unrooted phylogeny, the position of the bifurcating branches is not meaningful and only follows the treedrawing strategy of the tree-plotting algorithm. Branch pairs can be rotated 180 degrees leaving unaltered the lineages connecting each taxon to its ancestor (see Fig. 12).


Fig. 12

## 4. Retrieving Shared Sequences

If one wants to plot texts on a cladogram, it is essential to compute their linguistic distance. What is left once similarities (redundancies) have been removed is merely the sequence of characters that convey the information present in the text. As already mentioned in the previous section, redundancy does not carry information, yet it is important in defining the rules of communication and to ascertain deviations from them. From the point of view of Information Science, repetition implies a nonoptimal coding of the message that is being conveyed. Optimal coding intuitively requires the shortest possible sequence of characters, especially for iterated sequences.

This problem was investigated by American engineer Claude Shannon ${ }^{4}$ following a stochastic approach, whereas Argentinian

[^4]computer scientist Gregory Chaitin, together with Soviet mathematician Andrey Kolmogorov, tackled it logarithmically.

In Shannon's theory, information coincides with how surprising a message is (Shannon 1948a, 379; see also Shannon 1948b). Redundancy can be useful to make sure that a message makes it through the communication channel despite the interference of chance - the noise it may encounter. However, after the first time a string has appeared in a message, its reoccurrence is no longer surprising, i.e. it carries no information, and can be removed from the body of the text. As already mentioned, in Shannon's view there is a limit to how much one can remove in order to downsize a file. He called such limit "entropy". Zipping a message, i.e. computing its entropy, is tantamount to assessing how much information is carried by the message. In other words, in Shannon's view the notions of entropy and information are not only closely related, but even interchangeable.

Gregory Chaitin and Andrey Kolmogorov followed a logarithmic approach to entropy (Chaitin 1969; Kolmogorov 1968). They described the complexity of a digital object as the length of the shortest program that produces the object itself. An example may help clarify their theory. In order to have a computer output the string "AAAAA", one needs a very simple program consisting in one command or instruction: "write capital 'A' five times". However, if the computer must produce a string such as "AGDP134S", the program capable of yielding this output will be much longer than in the previous case: it will have to provide a separate instruction for each character of the sequence. The Chaitin and Kolmogorov definition was therefore also a measure of the resources needed to obtain that output: computers with wide computability resources can afford longer and more complex operations.

[^5]Again, Chaitin and Kolmogorov's was a theoretical limit. The ideally shortest program can only be reached by approximation. Zipping is the most suitable procedure to approximate such limit. For reasons of space, this paper will not delve into the mathematics of both approaches. The interested reader will find detailed explanations in the above-mentioned works by Shannon, Chaitin, Kolmogorov, Benedetto, Caglioti and Loreto. What is important is that both approaches look for optimal coding and both reach the same conclusion. No matter the path followed or the point of view from which the issue is tackled, compressors are paramount tools to assess entropy. Removing the unsurprising, iterated chunks of sequences, or reaching the limit of a text entropy, is therefore the precise task that a zipper is expected to perform (Pascucci 2017, 408-9).

For their research, Benedetto, Caglioti and Loreto resorted to LZ77, one of the most common compression algorithms. The modified version of LZ77 they devised was called BCL, the acronym of their surnames.

## 5. How LZ77 and BCL Work

Abraham Lempel and Jacob Ziv presented their compression algorithm in a paper titled "A Universal Algorithm for Sequential Data Compression" in 1977 (Lempel and Ziv 1977). To compress a file, LZ77 begins to scan it using a sliding window. Compression begins by taking note of each character of the text and goes on until repetitive patterns are found and subsequently stored in a repository called "dictionary". All the sequences in the dictionary are then replaced with a pointer. This contains two figures: the first expresses the distance of a string from the beginning of its previous occurrence, the second indicates its length. Because the algorithm 'learns' and puts aside recursive strings in order to match them with iterations, long texts will yield more iterated patterns, namely wider dictionaries, therefore better compression. The more strings can be removed, the smaller the zipped file. In other words, the longer the text, the more the algorithm will approach the threshold of optimal coding (no waste of characters
for repetitions), a limit that can only be reached if a text has infinite length.

If during the zipping process the typically recurring chunks of characters happen to change, for example due to the use of another language or because of a change in linguistic habits, the algorithm will still be able to compress the file; however, it will need a certain amount of time to learn the new recurring sequences, i.e. to recognise them and begin to store them in the dictionary. During this time, compression would not be as optimal as before the change.

Benedetto, Caglioti and Loreto decided to modify LZ77 so as to take advantage of this limitation. They wanted the algorithm to compress a text using only the patterns learned before the change in linguistic habits, so as to obtain less effective compression. They called the new algorithm BCL. The logic behind their modification was as simple as it was ingenious.

Let's suppose we append a text B to a text A, with A and B having different authors or being written in different languages. When the sliding window of the compressor crosses the A-B junction, BCL will not learn the iterated strings in B. Therefore, compression will not be as effective as when both texts are characterised by the same linguistic patterns. In other words, the compression yielded will not be optimal, because it will be based only on the redundancies characterising $\mathrm{A}^{5}$.

A feasible and suitable strategy to discover the most similar texts within a repository therefore consists in pairing each text with all the others and zipping the pairs. The best zipping couple will be the one in which text $B$ has the greater number of strings in common with text A. After all the pairs have been compressed it will be also possible to rank the results from the most similar pair to the most dissimilar, thus obtaining a distance matrix on which the final cladogram will be based ${ }^{6}$.

[^6]
## 6. A Few Considerations on the Shakespearean Texts Investigated

Modelling is essential to make scientific theories or processes easy to grasp at first sight. In particular, graphical models are essential to visualise a subject as a whole, yet Shakespeare is more ineffable than science and can hardly tolerate this coercion. The scholar trying to graphically represent his plays has to face problems not so different from what other textual scholars had to tackle before the computer era: a complete lack of holographs, which forces us to rely on transcriptions; the presence of sometimes remarkably different coeval versions of the same text circulating among the readers of his time; ensuing ecdotics issues; authorial controversies, multiplicity of spellings, non-normalised use of capital letters, and aberrant verse lineation due to space problems. Maybe Shakespeare's production is already a model, after all. One that has been built over the centuries and that can now provide the best possible approximation to what those texts must have looked like in his time.

This is why procedures such as sequencing and aligning in our case are much more complicated. Which quarto of Hamlet is more suitable to carry out a textual experiment? Or wouldn't the Folio version be preferable? Every possible choice is debatable and prone to criticism. In addition, unless the texts needed are entirely rewritten in a machine-readable format, obviously a timeconsuming approach, the scholar has to make do with the electronic formats available in the web.

For the present research the texts have been made machinereadable by coding them using ISO Latin-1, an 8-bit character set meant to represent western European languages within Unixbased operating systems and originating from ASCII (American Standard Code for Information Interchange), a standard language used to represent texts in computers. In this encoding each
http://evolution.genetics.washington.edu/phylip.html, a webpage by Joe Felsenstein of the Department of Biology at the University of Washington. They have been used within a Unix-based Operating System (Darwin) on a machine equipped with a $2,6 \mathrm{GHz}$ Intel Core i7 6 Core.
character, punctuation mark, space between words, diacritic sign, etc. takes 1 byte.

The texts herein used have been borrowed from a free online website offering a number of Shakespearean resources for students, teachers and academics (www.playshakespeare.com).

1. Antony and Cleopatra
2. As You Like It
3. Comedy of Errors
4. Coriolanus
5. Cymbeline
6. Edward 3
7. Hamlet
8. Henry 4.1
9. Henry 4.2
10. Henry 5
11. Henry 6.2
12. Henry 6.3
13. Henry 8
14. Julius Caesar
15. King Lear
16. King Richard 2
17. Love's Labour's Lost
18. Merchant of Venice
19. Merry Wives of Windsor
20. Midsummer Night's Dream
21. Much Ado About Nothing
22. Othello
23. Richard 3
24. Romeo and Juliet
25. Taming of The Shrew
26. The Tempest
27. Troilus and Cressida
28. Twelfth Night
29. Two Gentlemen of Verona
30. Two Noble Kinsmen
31. The Winter's Tale

Literary materials borrowed from the Internet often show inconsistencies. Even within the same repository it is possible to come across erratic usages and standards. From text to text (at times even within the same text), characters' names may appear within brackets or square brackets, they may be capitalised, abbreviated, in italics, etc. Number of acts and scenes may appear in Arabic or Roman numerals and be separated by a comma or a hyphen and so forth. Normalising such chaotic situations may turn out even more time-consuming than rewriting the texts from scratch. Last but not least, electronic texts are entangled with metadata, i.e. the instructions in the markup language used to make the texts available on the Internet (e.g. HTML or XML).

In addition, Shakespearean texts have undergone the attentive sifting of text critics. No matter how accurate additions, emendations, deletions and any other text alterations are, to a computer they are still sequences - a trail of bytes alien to the author.

The most feasible solution therefore consisted in removing punctuation, pilcrows - paragraphs could be the result of space issues in transcriptions rather than a stylistic choice - act and scene indications, stage directions and speech headings. As it will be clarified later, removing the latter was of paramount importance. In order to automatically accomplish these tasks, the author has therefore created a library of scripts ${ }^{7}$.

Availability and quality of the available material were not the only parameters affecting the choice of texts to be used. It was also essential to use only completely Shakespearean plays. Critical considerations on collaborative and apocryphal texts have been based on The New Oxford Shakespeare Critical Reference Edition (Taylor et al. 2017), presently the most state-of-the-art source of information about authorship issues.

According to the editors of the above critical edition, Titus Andronicus is characterised by several authorial hands such as George Peele's and Thomas Middleton's: George Peele, for example, probably wrote the first and possibly the second scene of Titus. The so-called 'fly scene' comes across, instead, as a later addition, probably by Thomas Middleton (Taylor et al. 2017, 1:127-28). A similar reasoning applies to Sir Thomas More, which Shakespeare only revised, as argued by editor Anna Pruitt (Taylor et al. 2017, 1:1101). Both plays were therefore omitted from this research.

The critical discussion about Pericles as a corrupted text casts an ambiguous light on the play. The New Oxford Shakespeare: Critical Reference Edition provides a detailed description of a complex authorial scenario (Taylor et al. 2017, 1:1346-47). The impossibility of determining who wrote what demanded that Pericles was left out too.

[^7]Timon of Athens is another collaborative play. In it, Middleton's authorial hand was identified long ago and has been more recently confirmed by D. Lake, R. Holdsworth, M. P. Jackson and B. Vickers. However, the play does not seem to be the result of precise labor division. A number of scenes seem indeed written by both authors and show either the inextricable presence of both authors or their alternation (Taylor et al. 2017, 2:3069). Since the risk of including a different author in the experiment was too high, Timon was not included in the final repository of plays.

Terri Bourus, editor of Measure for Measure, argues that the play was adapted by Middleton before it first appeared in written form, drawing for evidence on various evident additions and deletions. She discusses when the adaptation occurred and which sections of the text were altered. She concludes that "transpositions and deletions are [...] difficult and debatable. And it is impossible to be sure about the authorship of smaller passages" (Taylor et al. 2017, 2:1711). These elements seemed reason enough to omit the play.

Orthodox opinion about authorship issues in All's Well That Ends Well maintains that the play was written in collaboration with Middleton, yet the extent of such collaboration, although still under investigation, has not thus far produced conclusive results (Taylor and Egan 2017, 278-365). The play was therefore discarded. This is also the case with Macbeth, in which the layers of different authorial interventions have forced scholar John Jowett to edit it "as the work of two authors" (Taylor et al. 2017, 2:2999)

On the other hand, in other collaborative plays, the presence of multiple authorship has been verified and their fingerprints better discriminated. Most times it was therefore possible to join all the fragments and have them processed by the algorithms as if they were a whole text. A case in point are some of the histories.

It was therefore possible to include in the experiment Act III of 2 Henry VI as the only Shakespearean part of the work (Taylor et al. 2017, 2:2471).

As summarised by editor Will Sharpe, partial convergence has been reached on authorship matters in King Henry VIII, where the presence of Shakespeare has been unanimously detected only in
the first half of the play, more precisely in I.i, I.ii, II.iii, II.iv and in few other fragments for which, however, the general view is not univocal (Taylor et al. 2017, 2:2746-47). Therefore only I.i, I.ii, II.iii, II.iv have been here included as representatives of the play under investigation.

3 Henry VI deserves separate discussion. The play has recently undergone new investigation carried out by John Burrows and Hugh Craig, who have determined that I.iii to II.ii, II.iv to III.ii, IV.i, V.i, V.iii-vii are Shakespearean, whereas the rest of the play may well have been written by Marlowe (Burrows and Craig 2017, 195). The identified Shakespearean parts have been preserved and used in this experiment.

In her introduction to 1 Henry VI, Sarah Neville, editor of the text, summarises previous studies that looked for different authors in the text and concludes that Shakespeare only wrote II.iv, IV.ii and some parts of IV.iii-v (Taylor et al. 2017, 2:2387-88). Unfortunately, the size of the text chunk originated by grouping together the three fragments $(9 \mathrm{~KB})$ is well below the standard size of chunk for this analysis ( 32 KB ), so it was not included.

A convergence of opinions on attribution issues has been reached about The Two Noble Kinsmen. As R. Loughnane says in his introduction, "it is now almost universally accepted" that Shakespeare wrote I.i-iv, II.i, III.i-ii, V.i-iii, V.v-vi. (Taylor et al. 2017, 2:3547), all the other scenes were written by John Fletcher, whereas authorship of the shortest scenes, namely I.v and IV.iii, is still debated. For the purpose of the present experiment all the non-Shakespearean parts of the play and those in doubt have been stripped off.

## 7. Four Shakespearean Trees

Unfortunately, the BCL algorithm cannot scan entire texts. It has an upper limit of 32 KB . I have already mentioned that in the format used for the experiment (.txt) each character, be it an apostrophe, a space between words or a simple letter, contains a 1-byte piece of information. Conventionally, 1 KB equals 1024 bytes. This means that a $32-\mathrm{KB}$ passage comprises 32,768
characters. This is a substantial chunk of text, but well short of an entire play. The size of Shakespeare's plays varies from 72 KB (The Comedy of Errors) to 264 KB (Cymbeline).

Each play was split into $32-\mathrm{KB}$ chunks ${ }^{8}$. The remainders of such divisions, if present, were discarded. In the resulting trees, in order to identify chunks belonging to the same play, each fragment was marked by the title of the play followed by two letters. For example, The Comedy of Errors size is 72 KB. The division 72/32 KB generated three chunks: The Comedy of Errors_aa; The Comedy of Errors_ab; The Comedy of Errors_ac. Because fragment 'ac', as a remainder of the division, was only 8 KB, it was discarded to avoid the confounding factor of comparing long texts with short ones.

Applied to each of the Shakespearean plays in the available repository, in the first experiment the above procedure generated from one to a maximum of five $32-\mathrm{KB}$ fragments. Because the complete number of chunks was one hundred and the whole number of plays was thirty-one, the number of possible combinations, namely of trees that could be obtained, can be expressed as the product of a sequence of factors:

$$
\prod_{i=0}^{n} a i
$$

Or:

$$
\begin{aligned}
& \prod_{i=0}^{31} a_{i} \\
& \text { (where } 1 \leq a \leq 5 \text { ) }
\end{aligned}
$$

It was therefore rather surprising when, out of 594406696550400 possible combinations, the algorithm picked

[^8](created) one in which each cluster of leaves accurately grouped only chunks belonging to a single play, thus proving remarkably effective in text recognition.

To further test the performance of the algorithm, in the second experiment the stakes were raised and the plays in the Shakespearean corpus were split into $16-\mathrm{KB}$ fragments, which originated one hundred and eighty-nine text blocks ${ }^{9}$. As will be explained in the comment to each tree, the accuracy achieved was once more close to $100 \%$.

The third experiment was instead carried out to test the algorithm's capability in classifying texts according to the language in which they are written. One text in Bokmål (Norwegian) was thus included in the Shakespearean repository as the odd one out: Et Dukkehjem (A Doll's House). The reasons why this particular play was chosen are as usual related to availability criteria and format parameters. In this case, since the script library designed to automatically remove from the Shakespearean texts' punctuation, stage directions and so on was calibrated on the standards utilised in the Shakespearean corpus, Ibsen's text was processed manually.

The results obtained were once more encouraging: no one of the chunks from Et Dukkehjem ended up in one of the clusters of leaves comprising Shakespeare's plays. New experiments were then performed with an increasing number of foreign languages. Every time the results obtained were accurate: all the texts were grouped together according to their language.

The repository on which the fourth experiment in this research is based comprised works by a number of Shakespeare's contemporaries. The aim, here, was to check whether the algorithm could still recompose single works when tackling a number of authors instead of 1 only. In this case a successful grouping would entail author recognition, possibly the most interesting capability of the algorithms, when dealing with

[^9]Shakespeare or, more generally, with a system of literary production where authorship is often in doubt.

## 8. Results

## Tree 1

Tree 1 includes Shakespeare works exclusively. To obtain it, the algorithm was fed one hundred text blocks obtained by splitting whole plays into 32 KB , following the limitation of the algorithm sliding window. The new texts thus obtained were presented in the '.txt' format, one in which 1 character equals 1 byte of information. The texts were not in any way recognizable. They were untagged. After processing this overwhelming amount of data, the algorithm created a tree in which each cluster of leaves precisely rebuilds Shakespeare's plays as they were before being split.

Let's look, for example, at The Comedy of Errors, which is located near the bottom of tree 1 in the Appendix. After the splitting procedure, the play originated only two text blocks. Picking them out of the one hundred available, the algorithm rebuilt the play laying such blocks at the tip of a bifurcation whose node is marked by number $24^{10}$.


Fig. 13
Another interesting cluster comprises text chunks from The Taming of The Shrew. The play, longer than the previous one,

[^10]originated three blocks. Since, to obtain the distance matrix, the pairing of texts occurs in a pairwise manner, their final representation must perforce classify one of the fragments as more remote than the others. Cladograms, in fact, only express bifurcating branches. The resulting cluster was therefore as such:


Taming of the Shrew_ab
Taming of the Shrew_aa

Fig. 14

However, the clustering is still accurate. No pieces of other plays intrude into The Taming of The Shrew.

This is even clearer if both clusters are reported together as they appear in the tree.


Fig. 15

In this larger fragment it is possible to see that text blocks have been grouped and assigned to a specific cluster according to the play they belong to.

Surprisingly enough, the same phenomenon occurred fairly precisely for all other plays in the whole tree. The following is another example.


Fig. 16

However, the Roman plays deserve particular attention; in their case, the graph does not limit itself to recomposing them correctly. It also shows that the plays are somehow related by creating a super-cluster of Roman plays, at least as described in 1910 by M. W. MacCallum, who first introduced the expression to designate Shakespeare's plays based on Plutarch, namely Julius Caesar, Antony and Cleopatra and Coriolanus (MacCallum 1910). The following figure is just a part of the whole Roman-play supercluster, which can be seen in full in the Appendix.


Fig. 17

Super-clusters are therefore another characteristic of the tree, which also groups two among the great Shakespearean tragedies: Hamlet and Othello. All in all, while performing text recognition and re-creating each single play choosing among all the chunks obtained fragmenting the whole Shakespearean corpus, the
algorithm also seems fairly good at classifying as closely related all the taxa belonging to the histories and tell them from those belonging to the tragedies and to the comedies.

This phenomenon needs further investigation. The notions available at present do not allow any inferences on the reasons why the grouping occurs and whether it is possible to increase the algorithm's ability to group texts dealing with analogous subjects even when they do not bear strict resemblance (all the histories narrate events surrounding the lives of English kings, yet this is not reason enough to think that Richard III should be linguistically similar to Henry VIII, just to give an example).

All in all, when dealing with text recognition, the algorithm has proved almost $100 \%$ accurate. The only aberration occurred in the analysis of 2 Henry $I V$. Within the huge super-cluster encompassing the histories, 2 Henry $I V$ is positioned beside the cluster formed by 1 Henry IV in the following fashion:


Fig. 18

The graph highlights two fragments of 2 Henry IV that ended up in two different clusters, one springing off node marked 60 and the other off node 58. This is the only imperfection in the reconstruction of single plays. Here the remoteness indicated by the three nodes differs by a very slim edge, as shown by the figures marking them: 58, 60 and 61. The two text fragments are
therefore very closely related, yet not so much as to be considered by the algorithm as parts of the same play. This may be due, among other reasons, to the well-known problems raised by scene 9 (III.i) ${ }^{11}$ and a few other fragments. Authorial inconsistencies about this part of the play have been illustrated by Francis X. Connor (Taylor et al. 2017, 1:761-67). However, the misplacement could simply be due to an error produced by the algorithm or, more likely, by some sort of textual similarity that has not yet been fully disclosed. Even in the case of a trivial error - the remaining fragments from both works have been successfully grouped according to the play to which they belong - the procedure still proves useful. It can at least point out a passage deserving particular attention.

It may be worth pointing out that in this tree the positioning of two fragments of Antony and Cleopatra at the top and bottom of the tree is not due to an error. Both fragments are actually located on a bifurcation descending from the same node (the one marked number 10 to be precise) and the fashion in which they are arranged is just a visualization quirk of the software.

## Tree 2

Tree 2 was obtained after splitting the Shakespearean corpus into $16-\mathrm{KB}$ blocks in the attempt to ascertain whether the outcome of the algorithm is still accurate when dealing with shorter texts, which intuitively seems a more difficult task. What follows is an example of a much more complex and articulated tree that can be viewed in full in the Appendix. Here, given the increased number of fragments, they have been marked using different colours to make the graph more readable.

[^11]

Fig. 19

The results obtained in tree 2 are the same as in tree 1. All fragments have been correctly grouped together despite their larger number and their reduced size. This tree is but a litmus test to tree 1 . However, new observations are here in order.

In this case not only can the algorithm cluster the text chunks belonging to the same play. It also seems to have the skill to recognise adjacent sections of the plays, so that it allots a bifurcating branch to the 'aa' and 'ab' pairs of each play, then proceeding to allocate the next ones. We could of course estimate how likely it would be that adjacent fragments would end up in pairs by chance - quite likely if we were dealing with only a handful of cases, but very unlikely when (as here) we have scores of cases.

It has been previously clarified that the cladograms obtained do not account for any timeline whatsoever. Therefore, there should be no connection other than their subject between fragments of the same play. One interpretation of the result would be that logical or cognitive elements linking adjacent sections of a play are pinpointed by the procedure.

The 2 Henry IV misplacement which emerged in tree 1 here occurred again. This cladogram could therefore be the starting point for further experiments meant to establish whether, decreasing the size of the text chunks, it is possible to delimit the exact parts of texts from which the problem arises or whether the confusion between the two blocks is the result of some 'innate' textual characteristic and cannot consequently be eliminated.

## Tree 3

Tree 3 was created including in the Shakespearean corpus a play from a different author in a different language. For this purpose Et Dukkehjem (A Doll's House) by Henrik Ibsen was chosen because it was available in a form which meant that it could be easily prepared for the experiment. As already mentioned, this preparation had to be performed manually.

The following image describes the portion of tree in which the play appears.


Fig. 20

Enough has already been said about the algorithm's ability to recompose whole plays starting from fragments. The relevant fact here is that the algorithm can work at the same time on different linguistic codes and still perform effectively. No matter what and,
possibly, how many the codes in the corpus are, the procedure can still rebuild complete texts ${ }^{12}$.

However, an eye-catching aspect of this cladogram is the length of the branches meant for Et Dukkehjem. The procedure seems to consider the play written in the foreign code as the odd one out and isolates it from all the other texts, although not completely: since all files in the repository are zipped with one another, and because all the other texts in this experiment were Shakespearean, the algorithm also computed the distance from Et Dukkehjem to all other Shakespeare's works. It is therefore to be expected that, going back to the node from which Et Dukkehjem originates and down the other branch springing from the same node, one will find another Shakespearean play, namely $A$ Midsummer Night's Dream.

## Tree 4

Since the method so far deployed had shown interesting results in text and language, it seemed worth evaluating its capability when tackling authorship attribution. This is an extra step in this research, whose main focus was primarily to create a cladogram of Shakespeare's works both for the beauty of the resulting object per se and to discover whether it could provide new insight on the Shakespearean theatrical corpus of plays.

Tree 4 was therefore built including plays by Shakespeare and by other authors. Again, all texts were divided into 32-KB fragments. The number of texts added is small because of their scarce availability in standards easily convertible into machinereadable formats. Collaborative plays, of which there are many in the period, were excluded since mixed authorship blurs the definition of author and shakes the scientific foundation of the present experiment. The choice was therefore limited to available and certainly non-collaborative plays; from them, the following

[^12]have been chosen: Albovine and The Cruel Brother by William Davenant; The Bashful Lover and A New Way to Pay Old Debts by Philip Massinger; Monsieur Thomas and Rule a Wife and Have a Wife by John Fletcher; Volpone and Every Man in His Humour by Ben Jonson; The Duchess of Malfi and The White Devil by John Webster. Each play generated 2 text chunks. Only 1 chunk from The Duchess of Malfi and The White Devil was included in the analysed repository since the second chunks of these plays were too small.

The results here obtained seem encouraging. In the new tree obtained (see Appendix), non-Shakespearean works are grouped together correctly. They appear at the tip of bifurcating branches forming clusters isolated from the rest of the Shakespearean corpus.


Fig. 21

Albovine, for example, is situated at one end of the tree and cannot be confused with any other play. The same applies to The Cruel Brother, whose two fragments have been grouped correctly too (see Appendix). However, two clusters come across as particularly interesting.


Fig. 22

In the above figure, each cluster (respectively mustard and light blue) accurately recomposes all the fragments of The Bashful Lover and of A New Way to Pay Old Debts. Yet, these clusters form in their turn a super-cluster encompassing both plays by Massinger. Authorship recognition is here obtained in that all the works by one author are successfully grouped. Indeed, no alien chunks nor alien authors do appear in the super-cluster.

The second cluster worth mentioning is formed by The Duchess of Malfi and The White Devil. These plays were included to help assess whether the algorithm could detect plays by the same author as well as fragments from the same play. If bifurcations cluster two or more chunks belonging to one text, one might indeed argue that what is being recognised is the text rather than the author. Here the algorithm has clearly grouped the two blocks according to who their author is. There were no other fragments; no complete plays to recompose.


Fig. 23
Again, in this tree, fragments of Albovine can be found at the top and the bottom of the tree, yet they do not belong to different clusters. In fact, they spring from the same node (namely the one marked with number 2) and their being at opposite ends of the tree is but a visualisation issue, as is the apparent alphabetical order in which the plays might seem to be arranged (tree 1 has Antony and Cleopatra at its top and tree 4 has Albovine). Titles of the plays have been removed together with the previously mentioned textual elements and the software utilised does not include any sorting algorithms.

## 9. Afterword

The procedure illustrated in this paper is agnostic. It requires no previous knowledge of the subject matter treated nor of its language. If repeated, the experiments it entails yield consistent results. The outcome of each test does not change even when experiments are performed by a different human operator on different computers.

This is because, unlike human readers, the sliding window of the zipper scans the texts in search of repeated symbols, not of meaningful language units. Therefore, the sequences of characters it retrieves seldom match with words, phrases or whole sentences. On the contrary, they are usually quite short scraps including spaces between words, diacritics, if present, and word fragments. The few examples illustrated in the following table are meant to convey a sense of what redundant series of characters look like. The small array presented also includes a few rare longer sequences (words and phrases) to provide a general view of the strings in BCL's dictionaries.

| Line | Edward III | Line | Romeo and Juliet |
| :---: | :---: | :---: | :---: |
| 1552 | Artois and all look underneath thy | 1224 | look upon thy death |
| 1601 | Darby Ill look upon the Countess mind | 874 | a was a merry man took up the child |
| 2023 | be gone and look unto your charge | 5082 | revive look up or I will die with thee |
| 1584 | the king is in his closet malcontent | 1166 | drums in his ear at which he starts |
| 1552 | Artois and all look underneath thy | 329 | Where, underneath the grove of sycamore |
| 1555 | Undoubtedly then some thing is amiss | 763 | Compare her face with some that I shall |
| 1872 | Scour to New-haven some there stay for | 3028 | By my head here come the Capulets |
| 1550 | till after dinner none should interrupt him | 2569 | to dinner thither |
|  |  |  | I'll to dinner hie you to the cell |
|  |  |  | mourners and stay dinner |
|  |  |  |  |
| 1158 | acquaint me with your cause of discontent | 954 | And see how one another lends content |
| 1458 | the king is in his closet, malcontent | 4037 | I am content so thou wilt have it so |
|  |  |  |  |
| 1281 | O that I were a honey gathering bee | 1698 | O that I were a glove upon that hand |

Meaning is alien to most of the strings and, more generally speaking, to the whole procedure described. Zipping algorithms process texts and detect redundancy. It goes without saying that, when referred to the algorithm sliding window, the term "reading" is just a figurative expression bearing little resemblance to the common reading process. Normally we read semantically and semiotically, whereas the machine examines characters one by one while taking note of their position. This is why the results obtained by Benedetto, Caglioti and Loreto were surprising. Is it really possible to automatically classify the content of a text using a tool that completely disregards meaning? The answer given by the Italian scientists is 'yes'; however, although founded on a reliable scientific base, their reply comes across as no less surprising. Can the fingerprints of an author, or the subject treated in a text, wind up entangled in meaningless sequences of characters? Yet this is not the only question the procedure raises. Is text recognition in readers indeed related to content and meaning recognition? Given two fragments of a text in which character names, punctuation, paragraphs and all paratextual elements have been stripped out, will a human reader still be able to recognise their common origin? Can the placement of texts on a tree suggest ideas that scholars may later on confirm resorting to more traditional textual analysis tools?

In the third section of this paper, I have explained that the positioning of the branches is neither significant nor meaningful. Two clusters may be close on the tree, yet if they do not trace back to the same node, their similarity is very little. This is because all the specimens that will go to make the eventual cladogram are added one by one. When a pair forms, a new branch is created, then the algorithm jumbles all the branches available until the optimal positioning for all of them has been found. The result of this methodology is not the 'real' tree, one in which all similarities are represented, rather the best possible approximation to what one would ideally expect. In other words, the more one goes back to previous nodes, thus including a progressively larger number of clusters, the more the degree of similarity among the clusters decreases. Therefore, assumptions based on clusters originating
from distant nodes, even though represented as adjacent on the tree, should be taken cautiously.

However, disregarding the nodes from which the clusters spring and simply reading the 32-KB Shakespearean tree from top to bottom, new and more complex, though dangerous, interpretive possibilities seem to open up. For brevity's sake I will limit their discussion to just a couple of them.

I have so far noted only cases in which clusters are related to the obvious category of genre, particularly emphasizing the Roman plays.

Let's observe the same cluster together with the adjacent ones. Reading the tree vertically the first three clusters, here reported in the form of a list for reasons of space, are:

```
antony_cleopatra.xml.txtab
antony_cleopatra.xml.txtac
antony_cleopatra.xml.txtad
antony_cleopatra.xml.txtaa
julius_caesar.xml.txtaa
julius_caesar.xml.txtab
julius_caesar.xml.txtac
coriolanus.xml.txtaa
coriolanus.xml.txtab
coriolanus.xml.txtac
coriolanus.xml.txtad
```

Adjacent to Coriolanus, though springing from a completely different and distant branch is Cymbeline, one of Shakespeare's late plays. Cymbeline's speeches and actions are manifestly rooted in his Roman bringing-up and inspired by Roman values such as honour and courage, possibly in the attempt to recreate a new Roman Empire in Britain. "One might also mention that common to the Roman plays is a focus on military exploits, with the accompanying tumult, confusion, and occasional exercise of magnanimity" (Bergeron 1980, 31). All these elements, which led David M. Bergeron to define Cymbeline as the "last Roman play", also make it the most suitable candidate to be positioned next to
the real Roman plays on the cladogram. The cluster comprising Cymbeline looks like this:


Again, for reasons of space, the real tree with all the bifurcations leading to the above sample has not been reproduced. This super-cluster encompasses plays characterised by different contents and settings, thus corroborating the idea that some similarity, either in style or content, should rather be expected not only among the leaves included in each single cluster, but also among nearby clusters. However, one cannot refrain from noticing that the grouping, here, is formed by Shakespeare's late plays. Is the compression process responding to those elusive elements that Russ McDonald defined as "the distinctive properties discernible in the late verse [...] intimately related to the shift from tragedy to romance" (McDonald 2006, 44)? In this
light the positioning of King Lear on the same bifurcation as the late plays seems to suggest some kind of resemblance or analogy between this play and the late works included in the super-cluster, which scholars may choose to explore from a readerly rather than computational perspective.

The last idiosyncrasy I will mention is the peculiar positioning of Romeo and Juliet at the bottom of a huge cluster of comedies, springing off branch marked number 90 on the cladogram and adjacent to the cluster comprising the histories. We can speculate about how this play might bridge the gap between the comedies and the darker and more tragic atmosphere of the histories. Romeo and Juliet's deviation from the tragic genre is actually evident. The love language used by the two lovers, the bawdy talk of the nurse, the general atmosphere of the play from the beginning to the moment of Tybalt's murder, and the use of music are all elements more commonly found in comedy. Even the final death of the protagonists comes across as the consequence of a more comedic twist of chance than as the result of the fate usually looming over tragedy. Analysis of the compression procedure itself can offer no light on these matters, but so much of the patterning of the clusters corresponds to familiar groupings like genre that exceptions invite explanations in terms of the content of the fragments.

## 10. Conclusions

While the present research was being carried out, a number of unexpected results were shown by the trees that were being built. The more the research developed, the more the trees came across as promising in different areas of text analysis. The earlier idea on which this research was based was the creation of a phylogeny representing the theatrical corpus of Shakespeare's plays. The limitation in the number of characters that the sliding window of the compression algorithm could read imposed the splitting of texts into a number of fragments: a serendipity which brought about a decisive change. Realising that the tree-building algorithm could recreate a text starting from its fragments became therefore
the foundation of this attempt to prove how phylogenies can be useful in literary studies.

Using BCL and the neighbour-joining algorithm to build cladograms proved almost $100 \%$ correct in text classification and recognition. Authorship attribution, in the light of phylogenetictree construction, seemed accurate too, but it certainly needs a larger number of experiments on known authors to better understand its reliability. For reasons of space, time and computability, in this paper it was only possible to suggest how these tools may be used and to what extent they allow inferences.

During preliminary experiments meant to test the effectiveness of the procedure thus far described, attempts made on literary texts written in the eighteenth and nineteenth centuries proved even more effective. However, Elizabethan and Jacobean texts are a much more slippery ground than the more modern texts in print. Turning them into a machine-readable format without altering their nature is a long and complicated process which requires not only deep carefulness, but also a profound knowledge of the whole historical and literary scene at the end of the sixteenth century and the beginning of the seventeenth century. Most importantly, the scarcity of definitively attributed plays and the prevalence of collaboration mean that authorial attribution is likely to remain a highly controversial field, and one where new tools, approaching the language of the texts in an unexpected manner, like the one presented in this paper, are worth considering at least, as part of the armoury of the attributionist.

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```
+-antony_cleopatra_ab
    +-antony_cleopatra_ac
    +-36
    +-antony_cleopatra_ad
            +julius_caesar_aa
        +-1
        --5 +---julius_caesar_ab
        !
        +-----julius_caesar_ac
            +coriolanus_aa
                +-17
                ! +-coriolanus_ab
        +-23 +-11
            +-coriolanus_ac
            +-coriolanus_ad
                +-cymbeline_aa
            +-74
            ! +-cymbeline_ab
                +-68
                    +--cymbeline_ac
                    +-67
                    +-cymbeline_ad
                    +winters_tale_aa
                +-34
                +-59 +-winters_tale_ab
                    ! !
                    +-75 +-winters_tale_ad
            +-winters_tale_ac
        +---henry_viii_1-1-2_2-3-4_aa
        +-78
            +two_noble_kinsmen_selection_aa
            -69
                +-two_noble_kinsmen_selection_ab
                +-tempest_aa
            ! +-40
            +-44 +-tempest_ac
            +--tempest_ab
        +-king_lear_aa
        +-71
        ! ! ! +-king_lear_ab
        +-77 +-56
                +--king_lear_ac
            +-king_lear_ad
                +---as_you_like_it_aa
                        ! +---as_you_like_it_ab
                +-42
                    +---as_you_like_it_ac
                    -82 +--much_ado_about_nothing_aa
            +-7
                +-29 +---much_ado_about_nothing_ab
            +---much_ado_about_nothing_ac
                +--comedy_of_errors_aa
                +-24
                +---comedy_of_errors_ab
                +-79
            ! +--taming_of_the_shrew_aa
                +-6
                +--9 +---taming_of_the_shrew_ab
                    +---taming_of_the_shrew_ac
                +---merry_wives_of_windsor_aa
                +-2
            ! ! ! +---3
                3 +---merry_wives_of_windsor_ab
                    +---merry_wives_of_windsor_ac
                            +----two_gentlemen_of_verona_aa

\(-90\)

\(+{ }^{+}\)
! +--king_richard_ii_ab
+---king_richard_ii_ac
+---king_richard_ii_ad
+----henry_v_aa
+-47 +----henry_v_ab
+-26 +--henry_v_ad
+--henry_v_ac
\[
\begin{aligned}
& \text { +--henry_iv_pt1_aa } \\
& \text { +-25 } \\
& \text { +--henry_iv_pt1_aa } \\
& +-38^{+-25}+\text { +----henry_iv_pt1_ab } \\
& \text { +-48 +-henry_iv_pt1_ac } \\
& \text { +-58 ! +---henry_iv_pt1_ad } \\
& \text { ! ! } \\
& \text { +-61 + +---henry_iv_pt2_aa }
\end{aligned}
\]

TREE 2 - SHAKESPEARE ONLY (16KB)
```

    +antony_cleopatra_ab
    +-42
+-antony_cleopatra_ac
$+-21$
+-antony_cleopatra_ad
+-antony_cleopatra_ae
+-58
+-81 +--antony_cleopatra_ag
! !
+-antony_cleopatra_af
+---julius_caesar_aa
+-27 +julius_caesar_ab
! ! +-6
! ! +---julius_caesar_ac
+-18
! +-----julius_caesar_ad
+-2
-8 +---julius_caesar_ae
+-----julius_caesar_af
+-coriolanus_aa
+-50
! +-coriolanus_ac
+-49
! +---coriolanus_ad
+-20
! +--coriolanus_ae
-12
+coriolanus_af
+-82 ! +---coriolanus_ag
+-70
+--coriolanus_ah
+-coriolanus_ab
+----as_you_like_it_aa
+-121
! +--as_you_like_it_ab
+-158
! +---as_you_like_it_ac
+-126
! +-84

```



```

                    +-68 +--othello_ag
                    +-47
                            +------othello_ah
    ```
```

! +-king_lear_ag

$$
+-155
$$

+-king_lear_ah

$$
+-129
$$

+-134 +cymbeline_ab

$$
!!
$$

+--cymbeline_ac

$$
+-167
$$

$$
!\quad \text { ! +-cymbeline_ad }
$$

! !
+-147 +-cymbeline_ae

$$
!\quad+-132
$$

$$
!\quad!\quad+- \text { cymbeline_af }
$$

! +-cymbeline_ag
+-137
+-cymbeline_ah

$$
185 \quad+- \text { tempest_aa }
$$

$$
+-105
$$

! +-tempest_ae

$$
+-120
$$

$$
!!+----t e m p e s t \_a c
$$

$$
+-130 \text { +-85 }
$$

+tempest_ad
+---tempest_ab

$$
+-131
$$

$$
\begin{array}{ll}
! \\
+-179 & +-131 \\
! \\
\text { +winters_tale_ab }
\end{array}
$$

$$
+-57
$$

$$
\begin{array}{ccc}
! & ! & +-14 \\
+-187 & ! & !
\end{array}
$$

+winters_tale_ac
! ! +-winters_tale_ac
+-168 ! +--winters_tale_ag

$$
+-100
$$

$$
+-- \text { winters_tale_ah }
$$

+---winters_tale_ae
+-135
+-winters_tale_af
+-henry_viii_1-1-2_2-3-4_aa

$$
+-101
$$

$$
+-163 \text { +-henry_viii_1-1-2_2-3-4_ab }
$$

! !
+-166 +--two_noble_kinsmen_selection_aa

$$
!
$$

+two_noble_kinsmen_selection_ab
+-148
+-two_noble_kinsmen_selection_ac
-antony_cleopatra_aa

$$
\begin{aligned}
& \text { +---king_lear_aa } \\
& \text { +-161 +--king_lear_ab } \\
& \text { ! ! +-98 } \\
& \text { ! ! +king_lear_ac } \\
& \text { +-156 } \\
& \text { ! +-king_lear_ad } \\
& \text { ! +--king_lear_ae } \\
& \text { +-108 } \\
& \text { +--king_lear_af }
\end{aligned}
$$

```

TREE 3 - SHAKESPEARE AND IBSEN (32KB)
```

+antony cleopatra ab
+-antony_cleopatra_ac
I
! +julius_caesar_aa
! +-3
+-7 +-julius_caesar_ab
! !

```
```

+--julius_caesar_ac
+coriolanus_aa
+-16
+-coriolanus_ab
+-23 +-15
+-coriolanus_ac
+-coriolanus_ad
M+-cymbeline_aa
+-61
-60
+cymbeline_ad
+-78
! +winters_tale_aa
+-35
+-54 +winters_tale_ab
! ! !
+-66 +-winters_tale_ad
+-winters_tale_ac
+tempest_aa
+-44
+-77 +tempest_ab
!
+two_noble_kinsmen_selection_aa
+-king_lear_aa
+-63
! +king_lear_ab
+-53
+-king_lear_ac
king_lear_ad
+-hamlet_aa
+-59
! +-hamlet_ab
+-62 +-58
+hamlet_ac
+hamlet_ad
+othello_aa
+-57
! +othello_ab
+-39
! +othello_ac
+-22
+-othello_ad
+-troilus_and_cressida_aa
+-17
+-27 +-troilus_and_cressida_ab
! !
+-32 +-troilus_and_cressida_ad
+troilus_and_cressida_ac
+-henry_viii_1-1-2_2-3-4_aa
! ! +--henry_v_aa
+-42 +--henry_v_ab
+-6
+-26 +-henry_v_ad
+-henry_v_ac
+-henry_vi_pt2_act3_aa
+-37
! +-king_richard_ii_aa
+-18
! +king_richard_ii_ab
+-12
+-king_richard_ii_ac
+-henry_vi_pt3_selection_aa
+-11
+-henry_vi_pt3_selection_ab

```

```

!

```
TREE 4 - ALL AUTHORS
    +albovine_ab
+-1
    +-the_cruell_brother_aa
    +-3
    +-the_cruell_brother_ab
            +the_basshful_lovers_aa
        \(+-5\)
        +--8 + +he_basshful_lovers_ac
        +the_basshful_lovers_ab
        +-14
        +a new_way_to_pay_old_debts_aa
        +-11
            ! +-a_new_way_to_pay_old_debts_ab
            +-10
                                    +a_new_way_to_pay_old_debts_ac
            +-monsieur_thomas_aa
        \(+-7\)
        \(\begin{array}{r}+-9 \\ ! \\ \hline\end{array}\)
        +-12 +-monsieur_thomas_ab
        ! +-rule_a_wife_have_a_wife_aa
        +- -4
            +rule_a_wife_have_a_wife_ab
            +--duchess_of_malfi_aa
            +-13
        +-16 +--white_devil_aa
        +---volpone_aa
        +------every_man_in_his_humor_aa
            +--merchant_of_venice_aa
        + +-49 +---merchant_of_venice_ab
            +-----merchant_of_venice_ac
                +antony_cleopatra_aa
                    +-31
                    +-antony_cleopatra_ab
                    +-51
                    ! ! +-antony_cleopatra_ac
                -40
                +-antony_cleopatra_ad
                +julius caesar aa
            ! +-21
            \(+-24^{+-21}+--j u l i u s \_c a e s a r \_a b\)
            ! --_-julius caesar
            +-coriolanus_aa
            +-34
                                    ! ! ! +-coriolanus_ab
\(+-35+-32\)
                +--coriolanus_ac
            +--coriolanus_ad
            +-cymbeline_aa
            +-83
            ! +cymbeline_ab
            \(+-74\)
                    ! +-cymbeline_ac
                +-71
                    +cymbeline_ad
+-91 +---henry_viii_1-1-2_2-3-4_aa
+ ! +-85
    +two_noble_kinsmen_selection_aa




\title{
Computational Philology*
}

\author{
Jonathan P. Lamb
}

I begin with a walk down memory lane. The year was 1986, and critical theory had swept into most corners of literary studies. Yale theorist Paul De Man published a book called Resistance to Theory, about the emergence of literary theory in the American academy. De Man's defense of theory involved an unexpected but, as it turned out, highly influential claim, reflected in the title of the essay from which I want to quote: "The Return to Philology". De Man argued that "in practice, the turn to theory occurred as a return to philology, to an examination of the structure of language prior to the meaning it produces" (De Man 1986, 24, emphasis mine). For De Man and for many others in what has been called the "linguistic turn", at the heart of both critical theory and philology is a

\footnotetext{
* I offer enthusiastic thanks to Whitney Sperrazza, John Ladd, Doug Duhaime, Jonathan Hope, Laura Mielke, Anna Neill, Katie Conrad, Randy Fuller, Paul Outka, and Phil Drake. Thanks especially to Hugh Craig and the two anonymous reviewers for their formative feedback.
}
"concentrat[ion] on the way meaning is conveyed rather than on the meaning itself" (De Man 1986, 23).

In defending theory, De Man noted that "those who feel they may have to modify or to reconsider well-established pedagogical habits" come down with an "ill-humor". In the case of theory's detractors, the ill-humor runs deep:

It feeds not only on civilized conservatism but on moral indignation. It speaks with an anxiety that is not only that of a disturbed tranquility but of a disturbed moral conscience. Nor is this mood confined to the opponents of theory. Its protagonists, in most cases, are just as nervous. When they appear not to be, their self-assurance often seems to be dependent on utopian schemes. (De Man 1986, 21)

In this "disturbed" context, De Man's identification of theory with philology largely succeeded. The reason we call the emergence of critical theory the "linguistic turn" (a phrase that must make actual linguists laugh) is that, for all its disciplinary genealogies, much critical theory of the late twentieth century addressed itself to the conditions of signification, stressing a homology between language and everything else. If everything works like language, the reasoning goes, the literary scholar rules.

Some things in literary criticism have changed since then. The hubris of critical theory lapsed some time ago, and new schools of critical discourse have arisen, including the use of computers to study the past \({ }^{1}\). In this new landscape, De Man's description of the resistance to theory may sound uncannily familiar to scholars working in computational text analysis. The often justified "illhumor" of detractors and skeptics of computational methods has gone hand-in-hand with the increased use of those methods \({ }^{2}\). The "moral indignation" of many scholars toward computational methods - again, often warranted - is now at least a decade old, as is the nervousness among "protagonists" of these methods. Indeed, early theorizations of so-called distant reading took refuge in the

\footnotetext{
1 The ever-evolving Debates in the Digital Humanities series offers the best sense of the emergence of this field (Gold and Klein 2019).
2 The 2017 PMLA forum on distant readings offers a taste of the scholarly response. See especially Drucker 2017.
}
"utopian scheme" provided by the enhanced scale of computational methods \({ }^{3}\).

This essay returns once again to philology to alleviate the apparent conflicts between conventional and computational methods. Although it may seem strange, even perverse, to invoke something so old-fashioned, so glacially slow as philology, my claim here is that computational text analysis - using computers to study literature - is basically philological. Digitally driven methods can, and in a certain sense must, extend the longstanding practices and techniques of philological scholarship, by way of, and not without reference to, the concerns of critical theory in its past and present forms. Given the vexed history of philology as the so-called origin of the humanities, the stakes are high (Turner 2014). By applying computational techniques to three different datasets (Shakespeare's plays, all early modern drama, and Shakespeare's characters), I offer a new handle for these methods: computational philology \({ }^{4}\).

\section*{Philology and Computation}

Although De Man's definition of philology was influential, it is hardly universal. The fact that many philologists dispute De Man's account of philology is precisely why I have quoted so heavily from it. I mention this point at the outset to emphasize that longstanding disagreements over philological scholarship reappear in disagreements over computational methods, and the questions surrounding philology are the same as those surrounding computational text analysis. The definition of philology itself is (or should be) relevant to what literary scholars make of computational methods (Watkins 1990). The broadest definition is this: philology is anything to do with the study of texts. James Turner defines it as "the multifaceted study of texts, languages, and the phenomenon of language itself" (Turner 2014, ix). Saussure defined it as the field of knowledge whose mission is "to correct, interpret, and comment

\footnotetext{
\({ }^{3}\) See Ted Underwood's helpful pivot away from these utopian schemes (Underwood 2019, ix-xxii).
4 Although many European scholars have used similar terms for some time, it has not caught on in English-language scholarship.
}
upon texts" (Ziolkowski 1990, 6). Roman Jakobson and Friedrich Nietzsche called philology "the art of reading slowly" (Lönnroth 2017, 15). More recently, Hans Gumbrecht defined it as "a configuration of scholarly skills that are geared toward historical text curatorship" (Gumbrecht 2003, 2). Admittedly, none of these jumbled definitions screams 'computers', which we tend to value for their ability to read quickly rather than slowly, to predict rather than comment, and to count rather than read.

Notwithstanding these rather indistinct definitions, philology clusters around a set of practices. This is what philology has involved, historically:
- Identifying texts
- Editing/curating texts
- Writing commentary
- Historicizing/contextualizing texts
- Tracing the histories of words, phrases, and forms
- Comparing instances of forms
- Principled generalization
- Identifying significant features
- Addressing iteration
- Describing/explaining textual variation \({ }^{5}\)

These practices imply several key questions, which any appeal to philology must contend with: Is philology positivist? That is, does it strive to be empirical and scientific, and what would it mean if that were the case? How does philology relate to theory? Finally and most important, is philology hermeneutic? That is, does it make interpretive claims about texts?

Even those who want to answer 'yes' to this last question do not merely identify philology with interpretation. Rather, philology facilitates and even excites acts of interpretation by making texts available to analysis. The textual scholar David Greetham, for one, energetically rebuked the widespread belief that philology is "prehermeneutic" (i.e., before interpretation) on the grounds that the philological activities of textual studies and editing "can never

\footnotetext{
5 Even a list such as this may be controversial for its under- or over-representation of texts and language (Orlemanski 2015).
}
be prehermeneutical because [they are] already embedded, as cultural artifact[s], in the hermeneutic circle" (Greetham 1997, 19). In a gnarly but important sentence, Greetham argues that "just as criticism under poststructuralism became tropical and linguistic rather than extralinguistic and referential, so too did the operations of textual criticism become equally rhetorical and therefore just as 'threatening' to the imputed prehermeneuticism that de Man [...] observe[s] for philology" (Greetham 1997, 16). In other words, of course philology is bound up with interpretation, because all of its activities belong within the hermeneutic circle. Even for Greetham, however, they remain separate components within that circle: the techniques of philology, themselves products of interpretative work, inevitably produce new interpretations, which in turn affect philological techniques.

Scholars have been addressing similar issues about computational text analysis for at least a decade. Can computers help us think things we have not thought before? How does computation fit with critical theory? Can an algorithm produce an interpretation? Should we expect it to? At the very least, these shared questions suggest a philological continuum on which computational study takes place. More tellingly, here is a list of activities common in computational study:
- Identifying texts
- Curating/regularizing texts
- Generating/manipulating markup
- Modeling contexts
- Tracing the histories of words, phrases, and forms
- Comparing instances of forms
- Principled generalization
- Identifying significant features
- Addressing iteration
- Describing/explaining textual variation \({ }^{6}\)

My point here is to highlight the significant overlap between these two sets of practices - and not just overlap, but an isomorphism

\footnotetext{
6 A recent PMLA special issue puts many of these practices on display (Booth and Posner 2020).
}
between one, so established and foundational as to be invisible, and the other, still so emergent that people set their hair on fire when you start to talk about lexical distribution and predictive modeling.

Recent scholarship has brought these questions into sharp relief, infamously in Nan Z. Da's "The Computational Case against Computational Literary Studies". In forty pages of prose plus a GitHub appendix plus a Chronicle article plus multiple blog posts, Da accuses several scholars of misapplying statistical measures to the study of literature. For instance, Da reproduces a graph of Shakespeare's plays and writes that "you can't use [this approach] with the hope that [it] will work magic for you in producing interpretations that are intentional, that have meaning and insight defined with respect to the given field" (Da 2019, 621). Da, many of those against whom she writes, and others responding to the article seem to assume that interpretation is the point of computational text analysis. Da elsewhere assumes, in a puzzling contradiction, that computation does not imply a critical function \({ }^{7}\).

But does everyone agree that computers produce interpretations? Of course, as Amelia Acker and Tanya Clement have reminded us, computation is hermeneutically loaded, in the sense that interpretative choices subtend every step of the computation process (Clement and Acker 2019). But that is very different from expecting a computer to make claims about significance. Scholars of computational stylistics and authorship attribution have long integrated this point into their various modes of inquiry, particularly with respect to studies based on word frequency counts (Burrows 1992; 2002; 2005; 2007; 2012; Jackson 1979; 2003; 2014; Craig 2004; Taylor and Egan 2017). Their explicit goals are rarely hermeneutic, even when they remain cognizant of the interpretive consequences of computational choices. Although I remain ambivalent toward much attribution scholarship, I take this virtue as salutary. I would suggest that if we view computational text analysis as an extension of philology, then the conflict among these approaches is not so sharp, because we have rightly adjusted our expectations.

\footnotetext{
7 The debate has continued to develop since Da's article appeared (Weatherby 2020; Underwood 2020; Da 2020).
}

\section*{Principal Components Analysis}

Figure 1 shows a graph of Shakespeare's plays, similar to the one Da says cannot "produc[e] interpretations" (Da 2019, 621). This graph will look familiar to readers who have encountered similar graphs of early modern plays in the work of Jonathan Hope and Michael Witmore (2010), and more recently that of Hugh Craig and Brett Greatley-Hirsch (2017). To make this graph, I took the top 200 most frequent words in Shakespeare's plays (plus the anonymous comedy Mucedorus - more on that below) and ran the counts through a procedure called Principal Components Analysis, or PCA \({ }^{8}\). Craig and Greatley-Hirsch offer a helpfully accessible description of this technique:

> PCA [...] is a statistical procedure used to explain as much of the total variation in a dataset with as few variables as possible. This [explanation] is accomplished by condensing multiple variables that are correlated with one another, but largely independent of others, into a small number of composite 'factors'. (Craig and Greatley-Hirsch 2017, 30-31)

PCA is thus a dimension reduction technique, in which we can identify a small number of components or factors - mathematical abstractions based on the features selected - responsible for a proportion of the dataset's variation. In PCA, the factor responsible for the greatest proportion of variation is usually called "principal component 1 " or PC1. The factor responsible for the greatest proportion of the remaining variation is usually called "principal component 2" or PC2. The variation accounted for by this second factor must be uncorrelated to the variation accounted for by PC1; in other words, PC2 captures a different variation from that captured in PC1. Although we could calculate more principal

\footnotetext{
8 I used the Visualizing English Print texts of the plays, which represent transcribed versions of the First Folio texts ("Visualizing English Print" n.d.). To tokenize and normalize the data and create the PCA model, I used the SciKitLearn package in Python, which uses a covariance matrix to decompose the data. For Python code and higher resolution images, see my GitHub repository: https://github.com/jonathanlamb. On PCA, see Alt 1990; Kachigan 1991; Jolliffe 2002; Konishi 2014; Gray 2017.
}
components (factors responsible for decreasing amounts of variation, uncorrelated to the previous components), identifying just the first two components allows us to plot those values in a two-dimensional space and regard those plots as representations of variation across the dataset.

Although many more extensive explanations exist in the scholarship, let me illustrate how PCA works by reference to the graph in Figure 1. Doing so will not only clarify the unavoidably knotty language in the preceding paragraph but will also begin to substantiate my claim that this form of analysis is basically philological. First, imagine a spreadsheet, in which there are 37 rows (the selected plays) and 200 columns (the 200 most common words in those plays - words such as "again", "thee", and "you"). Each cell in the spreadsheet contains a numerical value referring to the number of times a particular word appears in a particular play. Next, we must normalize the data across the dataset to account for the different lengths of each text. The text of Hamlet is roughly twice as long as The Comedy of Errors, so making statistical comparison based on raw counts of the 200 most common words would drastically skew results. Although there are several established ways to normalize data (and ways to avoid the problem altogether), I have calculated the relative frequency of each feature. The results of this procedure are illustrated in Figure 2. Each word in each text receives a weighted value based on the length of the play in which it appears. These new values allow terms to be more rigorously compared across different documents (plays) even when those documents are very different in length \({ }^{9}\).

Next, we run the PCA. This procedure takes the normalized dimensional data ( 200 words across 37 plays) and reduces them to a smaller number of components, in this case two. As I said, these

\footnotetext{
9 Admittedly, this method creates some problems even as it resolves others. A different method, used by Craig and Greatley-Hirsch (2017), is to split each text into chunks of predetermined length. A still different method is to normalize the data using TFIDF, which weights features based on their frequency in a single document and across the corpus. I experimented with these methods and found they lead to roughly similar (though of course not identical) results. The larger point, of course, is that these methods pose questions of philological consequence.
}
two dimensions represent a mathematical abstraction of the larger dataset, so it is difficult to state what they include. Nevertheless, the language of representation is apt: PC1 and PC2 stand in for the variation across these documents. It is as though we are telling the computer, by way of linear algebra, "draw a line through these plays that accounts for the greatest variation among them"; and then, "draw another, perpendicular line that accounts for the greatest remaining variation". In the PCA used to create the graph in Figure 1, PC1 accounts for \(30.1 \%\) of variation in the data, and PC2 accounts for \(17 \%\). Each document (play) in our dataset receives a score in both PC1 and PC2 representing where that document stands in relation to the variation among all the documents. These scores can be positive and negative, such that a document can be positive or negative in PC1 and positive or negative in PC2, and we can graph those scores in Cartesian space.

In Figure 1, I have plotted PC1 on the X axis (horizontal), and PC2 on the \(Y\) axis (vertical). Here, for perhaps the first time in the process, the intuitive knowledge that comes with familiarity with Shakespeare's plays begins to interact with the mathematical representation of variation among them. In the terms I have established, for instance, Much Ado About Nothing scores high in PC1 (far right on the graph), while King John scores low in PC1 (far left), and both score about the same in PC2 (little vertical difference). This means that the variation represented in PC1 distinguishes Much Ado and King John, but with respect to the variation represented in PC2, the two plays are similar. By contrast, consider the placement of Henry V, Macbeth, and The Two Gentlemen of Verona. Henry V and Macbeth have similar values on PC1 and PC2 (thus they both appear in the top left), and the graph tells us that these two plays have values opposing The Two Gentlemen of Verona in PC1 and PC2. In terms of the variation expressed in PC1 and PC2, The Two Gentlemen of Verona is the opposite of Henry V and Macbeth. They are also, not fully coincidentally, very different kinds of play.

One virtue of PCA is its tendency to separate a set of documents into different kinds or clusters. "Kind" here could mean dramatic genre, or it could mean other, perhaps unexpected, categories. The crucial point is that there is an uncertain but suggestive relationship between, on the one hand, the lexical features underlying the statistical model and, on the other hand, the intuitive relationships
and patterns that those models may call our attention to. In Figure 1, the histories tend to cluster on the left side of the graph, and the comedies on the right. PC1 reliably splits histories from comedies and even from tragedies, which hover around zero on PC1 (hence, not much horizontal movement). Those familiar with a similar graph from the work of Hope and Witmore will not be surprised to see that Othello has the linguistic profile of a comedy (Hope and Witmore 2010). This position reflects the comic register of much of the play's language, for example in the great temptation scene, which has both the features (i.e., the lexical patterns, visible to the computer) and the dramatic structures (i.e., formal categories, intuitive to a reader or viewer) of a wooing scene.

Other categorical relationships emerge on the graph, in many cases prompting us to look again at both the features informing the statistical procedure and at the plays themselves. The close proximity of Timon of Athens and A Midsummer Night's Dream, for example, reminds us that, in both plays, groups of characters go to the woods outside Athens. Again, the two plays' positions on the graph, which are a function of the PCA model built on the 200 most frequent words, remain distinct from the two plays' dramatic similarities. The computer does not know each play is set in Athens; strictly speaking, it does not know the two documents are plays at all. But the computational philologist can, and indeed must, reckon with both sets of observations. Likewise, the proximity of Troilus and Cressida, Antony and Cleopatra, Cymbeline, and Julius Caesar suggests a resemblance among classically oriented plays. The fact that they are classically oriented and the fact that they include a certain set of features producing their positions on the graph are distinct but perhaps meaningfully related. Moreover, I included the bestselling comedy Mucedorus in this dataset, based on my longstanding interest in the play as like a Shakespeare play though not written by Shakespeare (Lamb 2018). It clusters near Romeo and Juliet, a tragedy. The PCA model calls our preliminary attention to certain similarities between the two plays: both are about lovers who disguise themselves; both the male lovers have rivals and are exiled; both sets of lovers have their relationship threatened by the woman's angry father. Our awareness of this similarity arises from
the linguistic profile modeled here, even if we must do much more work to build any kind of interpretation based on this resemblance.

But where is philology in all of this? That is a key question, since any exciting observations we might make about Figure 1 would seem to exist at many removes from the usual concerns of philology - language, text, textuality. I offer two important connections, one broad and one narrow, which I want to develop in the course of this essay. First, the 200 most frequent words used to build the PCA are, importantly, words, the meat and potatoes, as it were, of philological methods. Stylistics scholars have long viewed this particular class of lexical items (i.e., most frequent words) as especially important for studying style and register in a corpus. Even more broadly and historically, philology has addressed itself to words in texts as its primary objects of inquiry. Crucially, this emphasis on the compositional features of language carries across most modes of inquiry that regard themselves as philological \({ }^{10}\).

Second, and more narrowly, this graph returns us to De Man's insistent claim that philology examines "the structure of language prior to the meaning it produces" (De Man 1986, 24). These computational techniques accomplish something similar, and similarly controversial. De Man's influential essay - entitled, you will recall, "The Return to Philology" - defended critical theory from its detractors by identifying it with philology. De Man championed the practice of close reading because it "cannot fail to respond to structures of language which it is the more or less secret aim of literary teaching to keep hidden" (De Man 1986, 24). Although Figure 1 engages in no conventional close reading, it accomplishes a similar response. I have just narrated a set of procedures that turn words into numbers, then into different numbers, then into mathematical abstractions, and then into graphical representations of those abstractions in two-dimensional space - illustrating Johanna Drucker's point that these are not so much "data" (given information) but "capta" (taken information) (Drucker 2011). These procedures draw attention to structures of language that, though not hidden by some 'secret' purpose, nevertheless become newly accessible (Froehlich 2020). If the graph

\footnotetext{
10 See, for instance, Masten 2016; Shore 2018. I eagerly await Ian Smith's inprogress work on "fair" as the marker of whiteness in The Merchant of Venice.
}
tells the truth, it is not about what Shakespeare's plays mean, but about the structures that make meaning possible and available to thought. In this respect, the methods employed here are philological in the narrow sense De Man offers.

To illustrate the layered philologies inherent in these methods, let me back up a step. Each play's scores in PC1 and PC2 are a composite of all 200 words in the dataset; the relative presence or absence of a single feature in a document affects that document's position on the graph. This affect is alternately known as a feature's "weighting" or "loading" (Craig and Greatley-Hirsch 2017, 35). Each feature affects the score a document receives on both PC1 and PC2; that is why we can't say what each principal component contains (i.e., some words rather than others), since all 200 features have weight in each component. In a move now commonplace in computational text analysis, after we 'fit' the PCA model to the 200 features and before we 'transform' that model to the 37 plays, we can extract the weighting scores for the 200 word features and graph them, as we did with the plays, in two-dimensional space. Figure 3 shows the features with the strongest weightings (greater than .05 in any direction); to graph all 200 would create unreadable clutter around the origin. Think of these points as vectors that 'push' plays around the graph: the weighting of "you", for instance, pushes texts that contain comparatively many instances of "you" higher in PC1, and somewhat higher in PC2. A glance at the text of The Merry Wives of Windsor, which appears on the top right in Figure 1, reminds us that it is a play in which an ensemble of characters relatively unfamiliar with one another constantly address each other with "you". We might even pursue this line of inquiry and read Merry Wives as thematizing the collapsing social class dimensions built into "you"/"thou" distinction. "King", meanwhile, weights texts lower in PC1 and not much at all in PC2; this loading likely has some relation to the position of history plays on the left in Figure 1. Finally, bear in mind that these vectors can cancel each other out in determining a given play's position. A closer look at the tragedies that are close to zero in PC1, for instance, may reveal high relative values of some left-pushing and some right-pushing features.

The point here is simply to emphasize the extent to which, as Andrew Piper has argued, "computational reading is inevitably tied to the norms and practices of the past" (Piper 2018, 3). To this statement, I would add that a method like PCA is tied not simply to the longstanding methodological norms of philology, but also to the controversies that accompany, contest, and critique those norms. Recall Greetham's insistence that De Man was wrong to suggest that philology is somehow "prehermeneutic", and that philological scholarship is always hermeneutically loaded. How comfortably the debate over computational methods falls along the continuum of disagreement over philology! Da's accusation that quantitative methods produce no interpretations, to which we will return, rehearses stages of the long debate over the status of philology.

\section*{Computational Philology at Scale}

In his transformational book Distant Horizons, Ted Underwood argues that " \([\mathrm{t}]\) he point of distant reading is not to recover a complete archive of all published works but to understand the contrast between samples drawn from different periods or social contexts" (Underwood 2019, xx). Whereas earlier arguments on behalf of quantitative methods invoked textual recovery, Underwood suggests that modeling and dialectic make the most fruitful critical use of computational methods. Even here, we remain on philological ground, which has already known drastic increases of scale \({ }^{11}\). What "contrast between samples" emerges if we move from a single-author corpus to compare a much larger field, in this case a set of almost all the early modern plays available in Early English Books Online?

To produce Figures 4-6, I took similar steps as before, using the corpus of pre- 1700 plays created by the Mellon-funded Visualizing English Print (VEP) project ("Visualizing English Print" n.d.). I added metadata to the corpus, then followed the same statistical procedure as before, using the 200 most frequent words across the whole corpus. Here, as with Shakespeare's plays, the very plays

\footnotetext{
\({ }_{11}\) To pick the most obvious example, Erich Auerbach's Mimesis: The Representation of Reality in Western Literature takes as its focus not just "literature" but "reality"!
}
used constitute a series of selections that determine the results of the statistical procedures. This whole process of selection is a form of philological curatorship. Thinking about it this way - as connected to but not fully constitutive of interpretation - escapes the otherwise incisive accusations of Da and others. Computational methods are not for interpretation, even if they make interpretations possible. Rather, these tools are good for what philological work has always been good for: addressing what De Man calls "the way meaning is conveyed rather than the meaning itself" (De Man 1986, 23).

In Figure 4, which displays a PCA of all the dramatic texts in the VEP corpus labeled by genre, we once again see imperfect clusters. Masques and entertainments almost exclusively occupy the bottom right, while comedies dominate the bottom left. Just to repeat, this means that the two genres have different values in PC1 and similar values in PC2. Many tragedies have a positive PC2 value (thus appearing in the top half of the graph), but enough comedies appear in the same space that there is no clear, coherent distinction in terms of genre alone \({ }^{12}\). Likewise, most comedies have a negative value in PC1 (thus appearing on the left half of the graph), but again the distinction remains murky. Figure 5, in which dramatic texts have now been labeled with the decade in which they were written, helps clarify the situation. The comedies on the bottom left tend to have later dates (mid to late seventeenth century), while the comedies above the X axis tend to have earlier dates (late sixteenth and early seventeenth centuries) \({ }^{13}\). Relabeling the data by author another choice with hermeneutically loaded assumptions, given what we know about collaboration and authorship in early modern dramatic texts - suggests that the PCA implemented here does not capture meaningful categorical distinctions of authorship, though some author clusters appear (see below). Here again, however, these observations create more questions than they settle. Is the

\footnotetext{
12 The ratio of variance explained in the model is relevant here: PC1 captures \(37.1 \%\) of the variation in the dataset, while PC2 captures \(8.1 \%\). These numbers mean that horizontal position on the graph represents a substantial proportion of the variation, while vertical position represents appreciably less, though still a significant amount of, variation.
\({ }^{13}\) PC2 and date of writing have a negative Pearson correlation of -.495 \(\left(\mathrm{p}=1.2^{-26}\right)\). That is, the later the date of writing, the lower the PC2 value.
}
variance captured in PC2, which seems to have some imperfect relation to date of writing, a function of the changes to the English language in the seventeenth century? Is the variance captured in PC1 largely a function of genre, or some other category that also affects genre?

Like the feature selections and transformations that permitted it to be built, this descriptive model is best understood as a philological artifact. In this line of thinking, the virtue of the graph lies not in its explanatory power but in its philological potential to suggest, reframe, and motivate new critical work. Scholars of digital methods have been making this point for a long time, though not by reference to philology \({ }^{14}\). The fact that the graph shows us some things we already knew guarantees its coherence, and, at the same time, it propels us to new forms of inquiry. Just to choose one example, it may not surprise us to see that English translations of Seneca's plays appear near each other (see Figure 6). But precisely because that cluster does not surprise us, we must reckon with the fact that near this cluster also appear several plays by Christopher Marlowe (1 and 2 Tamburlaine and Dido, Queen of Carthage). Moreover, this cluster also includes Fletcher's The Faithful Shepherdess, Milton's Samson Agonistes, and Shakespeare's Richard II - an unlikely grouping if there ever was one. Even before we explore the features that have produced this cluster, philology furnishes an anthropology of language with which to approach these renderings of mathematical abstraction. Such an approach might begin with the observation that each of these plays concerns, in its dramatic action, failure. More precisely, these plays feature characters who achieve dramatic personhood by way of failure - the essence of the paradoxical stoicism that Seneca has been taken to represent (Lamb 2017). The next (philo)logical step would be to explore how the lexical features that produced this cluster relate to these thematic observations.

Following Underwood's point about comparisons across samples, this second PCA allows helpful contextualization of the first PCA of Shakespeare's plays. Making such a comparison is like a philologist contextualizing one writer's use of a word by reference to other writers' uses. Nay, it is - I know not "like". While Othello

\footnotetext{
14 This point is on full display in Gold and Klein 2019.
}
appeared with the comedies in the first PCA, in this second model it falls near other tragedies (see Figure 7). Perhaps this seems unexciting, until we see the tragedies nearby: The Miseries of Enforced Marriage; Darius, King of Persia; The Tragedy of Mustapha; Aureng-Zebe; Love's Sacrifice. What we lose in productive generic confusion we gain with a whole new dramatic context for this play. These plays concern love, marriage, and the dissolution of both; they concern racialized outsiders from Persia and the Ottoman Empire; and, crucially for our approach to Othello, they dramatize conflicts among love, marriage, and race. These resemblances do not immediately explain the word counts that underlie this graph, however, and that is precisely the point: the model, based on a series of selections and abstractions, produces new cues for scholarship. It is unhelpful to call this process EDA, or Exploratory Data Analysis (Da 2020), because that label cuts off the deep philological roots of the process.

In articulating the value of computational methods, Piper complains that conventional literary studies lack two important things: first, a way to address how much recurrence happens in literature - how many repeated genres, modes, forms, and so on there are, and second, a science of generalization - the ability to move from a single instance to a more general claim. He rightly claims that computation can provide these two things (Piper 2018, ix-xi). With all due respect to Piper, however, we already had a set of techniques for doing both of these things. It's called philology. Understood as standalone, interpretative expressions of information, these graphs might as well have the minimal value attributed to them by critics. But understood as reagents in the rich anthropology of language we call philology, they become much less ambitious, perhaps, but also far more exciting.

\section*{Every Man in His Humour}

The literary theorist Barbara Johnson asked a great question: " \([w]\) hat if the philologist's attentiveness to language were great enough to open up irresolvable difficulties, resistances to meaning, or other, unexpected meanings within the text?" (Johnson 1990, 28). "What is at stake" in philology, she wrote, is "how to read in such
a way as to break through preconceived notions of meaning in order to encounter unexpected otherness" (29). That project, I want to suggest in this final section, continues in the work of computational philology. Many scholars have written eloquently about the genuine problems of computational techniques, which are embedded in histories of racism and misogyny (McPherson 2012; Gallon 2016). In step with this critique, I worry too over the nationalist history of philology (Richardson 1994; Benes 2019). Engaging in both fields requires profound and continual selfcritique, which in turn gives a sharp edge to the hermeneutic possibilities and futures of these methods.

I offer one more PCA, this one moving beyond whole plays as the principle of selection. This time, I collected the speech of Shakespeare's characters who speak more than 500 words and ran a PCA model with those data (see Figure 8) \({ }^{15}\). Again, there's a vaguely discernible generic break between history (left) and comedy (right). But what really excites me here is the way the characters break down imperfectly into quadrants. In the top left, we have medieval and classical characters: Hotspur, Henry V, Ulysses, and Agamemnon. In the bottom left, we find characters who tell people what to do, whether or not those people listen: the Ghost in Hamlet, John of Gaunt, Queen Margaret (twice), Tamora and Saturninus, and the Fool in King Lear. In the bottom right, we find many women characters: Miranda, Cordelia, Hermia and Helena, Isabella, Katherine (from The Taming of the Shrew), Desdemona. Finally, in the top right, we find servants and clowns: Camillo, Rosencrantz, Nerissa, Dogberry. We also have the Duke in Measure for Measure and Rosalind, who spend most of their plays performing lowliness.

\footnotetext{
15 Although many of the most talkative characters tend to appear closer to the middle of the graph, there is no automatic strong correlation. The Pearson correlation between the absolute value of PC1 and length of part is -.005 ( \(\mathrm{p}=\) .917), not significant, whereas the correlation between the absolute value of PC2 and length of part is -.135 ( \(\mathrm{p}=.008\) ), highly significant. I would like to acknowledge the work of Michael Poston, who created the Folger Digital Texts API (https://www.folgerdigitaltexts.org/api) that makes this curation quite simple. I also thank the incomparable Nellie Kassebaum for her collaborative efforts on behalf of this project.
}

One useful effect of this graph is to decompose the findings of the first two PCAs. A dramatic text is made up primarily of character voices, and those characters represent individuated persons speaking in distinctive mimetic patterns and rhetorical situations - almost like real people. Othello's position on the graph is largely a function of the words of its most talkative characters; studying where its characters fall in the character speech corpus helps contextualize previous findings. In Figure 9, perhaps to our surprise, Othello and Brabantio appear in nearly the same spot (right near Titus, Lear, and Cleopatra - a take-charge group if ever there was one). Roderigo, Desdemona, and Emilia appear close together as well, near four major characters from Twelfth Night (Malvolio, Sebastian, Olivia, and Viola). These seven characters have in common a sustained interactivity with other characters, including each other. Iago, meanwhile, appears near no other Othello characters, but he does share a speech profile with Much Ado's Don Pedro and Hamlet's Polonius! This trio spends much of their stage time giving advice to others, including characters already mentioned. These observations may not mathematically explain why Othello appears with the comedies in Figure 1, but they do manifest dramatic factors underlying those mathematical representations.

As before, we can extract the weightings of the 200 features used to generate Figure 10 and use them to formulate critical questions. This well-established rhetorical move in the digital humanities often presents itself as a departure from conventional literary scholarship methods, and from more recent forms of cultural critique. In a philological context, however, this is a familiar move, interrogating how the observed state of a text came to be that way, and how it changed over time. In Figure 10, I have graphed the features with the highest loadings (greater than .02 ); their position on the graph represents their loading vectors in PC1 and PC2. As with the feature graph of Shakespeare's plays, personal pronouns strongly affect a character's position. "You" and "your", the pronouns used by social inferiors, pull characters toward the bottom-right quadrant. By contrast, "thee", "thy", and "thou" pull toward the top-left, where we find bossy characters. Looking at Shakespeare's characters this way reminds us of what they always
were: clusters of signifiers arranged in such a way that we infer something beneath them - a body beneath the clothes. As I indicated, scholars trained in philological methods are pretty good at collating textual variants at various levels of abstraction. This graph too invites us to collate clusters of signifiers by way of abstraction - for example, Juliet and Caliban, who appear in almost exactly the same position on the graph (see Figure 8). A kind of statistical Hinman Collator.

Together, these graphs invite us to regard a given play as a composite in two related and perhaps competing senses. First, the play is composed of artfully selected and disposed lexical items across the entire text, and second, the play is a composite of individuated characters speaking a more peculiar set of lexical items in particular situations. Plays are certainly more than that, but they are not less. When we encounter what Johnson calls "unexpected otherness" (Johnson 1990, 29), as for example in the resemblance between Juliet and Caliban, we need a critically selfaware philology. Figure 10 suggests - and a look at their speeches could confirm - that these two characters appear where they do partly because they use "thou" pronouns along with "me" and "my". Both characters speak from positions of abject familiarity, though their abjections are very different. Both are forbidden by an authority figure (Capulet, Prospero) from pursuing different kinds of erotic attachments with another character (Romeo, Miranda). Both respond to advice from a character perceived as knowledgeable (Father Lawrence, Stephano and Trinculo). Both are disempowered when political changes in which they have some stake displace their personal ambitions (marriage, insurrection). Drawing on decades of postcolonial readings of Caliban, we might ask, do the differences within these characters' similarities make it possible to interpret Juliet as a figure marked by whiteness?

To be clear, none of these comparisons is in the data. Many are admittedly fanciful. But all are energized and perhaps inspired by the data, and that is precisely the value of thinking about these graphs philologically. If we lower our expectations about what these methods are supposed to produce from a fully-formed, robust hermeneutics to a philologically-oriented exploration of language, then we may find that we can raise our ambitions about the intellectual work they make possible. Circling back to De Man,
these methods seek to address the language of texts as objects of analysis at varying levels of complexity and abstraction. Moreover, they involve curation at every step - curation of documents in new or different configurations, curation of texts in new patterns, curation of linguistic models. They also enable us to abstract and therefore compare texts on the way to making an interpretive claim. These techniques do not and can never constitute interpretation (just as nothing philology does is merely an interpretive act); rather, they excite interpretation and make it possible.

Readers may have noticed that I have not quoted from any primary texts in this essay. This is by design. The urge to move past computational methods remains so strong in literary studies, even among those attracted to these methods, that I wanted to dwell on the models as philological composites in their own right. The curation choices, statistical procedures, and graphical representations offered here are not "prehermeneutic", in Greetham's terms. They do not exist in some neutral, apolitical zone, just as the philological work that underlies most literary scholarship does not. We need a scholarship capacious enough to include statistical models alongside textual variants, semantic contexts, theories of textuality, and cultural critique. We need, in short, a computational philology.


Fig. 1
\begin{tabular}{rrrrrrrrrrrrrrrrrrrr} 
& again & against & all & am & an & and & any & are & art & as & ... & whose & why & will & with & word \\
\hline 0 & 0.000839 & 0.000789 & 0.004538 & 0.003650 & 0.001726 & 0.031469 & 0.001529 & 0.005376 & 0.001381 & 0.007991 & \(\ldots\) & 0.000296 & 0.002811 & 0.008089 & 0.009470 & 0.000789 \\
1 & 0.000700 & 0.000088 & 0.004816 & 0.001926 & 0.002277 & 0.027581 & 0.001313 & 0.002539 & 0.001138 & 0.005954 & \(\ldots\) & 0.001401 & 0.004728 & 0.007880 & 0.010419 & 0.000263 \\
2 & 0.001427 & 0.000649 & 0.005903 & 0.002595 & 0.001622 & 0.029448 & 0.001297 & 0.004800 & 0.001881 & 0.007265 & \(\ldots\) & 0.001038 & 0.000908 & 0.005384 & 0.008562 & 0.000584 \\
3 & 0.001027 & 0.000540 & 0.002648 & 0.004702 & 0.002162 & 0.025943 & 0.001675 & 0.004648 & 0.001459 & 0.007945 & \(\ldots\) & 0.000378 & 0.002378 & 0.008756 & 0.008972 & 0.000649 \\
4 & 0.001193 & 0.001325 & 0.007023 & 0.002915 & 0.002032 & 0.029283 & 0.000883 & 0.006316 & 0.000265 & 0.006934 & \(\ldots\) & 0.000574 & 0.000530 & 0.004461 & 0.007685 & 0.000133
\end{tabular}

Fig. 2


Fig. 3


Fig. 4


Fig. 5


Fig. 6


Fig. 7


Fig. 8


Fig. 9


Fig. 10

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\title{
Selfish Bastards? A Corpus-Based Approach to Illegitimacy in Early Modern Drama*
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Early modern theatre bred a steady stream of bastards. No doubt, this abundance reflected public concerns about illegitimacy as a challenge to the institutions of marriage and patrilineal inheritance as sanctioned pillars of the social order. Parents of illegitimate children, particularly mothers, were often publicly shamed and punished (Macfarlane 1980, 73) \({ }^{1}\). As the fruit of illicit sexual passion, illegitimate children were imagined to inherit a propensity

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* Ladegaard wrote the article, while Kristensen-McLachlan did the data extraction, the computational analysis, the tables and co-authored the section "Keyword Analysis: Method and Corpus". This work was supported by the Independent Research Fund Denmark under Grant number DFF - 6107-00301. The authors would like to thank our colleagues in the research project "Unearned Wealth: A Literary History of Inheritance, 1600-2015" and Paulina Kewes, Michelle Dowd and Alison Findlay for helpful feedback on presentations of earlier versions of this work.
1 As Michael Neill points out, a common synonym for "bastard" was a "whore's son" (Neill 2000b, 150). For a nuanced view of the consequences for fathers to illegitimate children, see Shepard 2013.
}
for moral transgression from their parents \({ }^{2}\). They were stereotypically characterized as passionate, duplicitous and even monstrous (Neill 2000a, 134). The social experience of illegitimate children was surely not the same across the social spectrum, but illegitimacy uniformly entailed legal restrictions, especially for males. For example, common and canon law barred illegitimate males from the patrilineal inheritance of land, title or membership of trade guilds, although they could inherit land by deed or will (Macfarlane 1980, 73; Findlay 1994, 30-32; see also Dowd 2015, 3349). This was a potential source of conflict that helps explain why over \(90 \%\) of the bastard characters in early modern drama were males (Findlay 1994, 5).

The arguably most well-known of these characters, Edmund in Shakespeare's King Lear (1605-6)³, unfolds this conflict potential in his rebellion against the settled line of succession, in the process both defying and ironically confirming the cultural stereotypes of bastardy. He thereby embodies the ambivalent critical potential that several scholars have identified in early modern representations of bastardy. The most comprehensive work on the subject, Alison Findlay's Illegitimate Power: Bastards in Renaissance Drama, explores how bastard characters confirm or subvert cultural binaries such as natural/unnatural, good/evil, male/female (Findlay 1994). Michael Neill's Putting History to the Question also discusses the ways dramatic bastards "threaten the distinctions" of the social order (Neill 2000a, 147). Recently, Helen Villa Bonavita likewise considers the bastard as a "liminal" figure who challenges social hierarchies (Bonavita 2017, 16-17). Illuminating as these studies are, their generally thematic orientation also leaves some things out. One such omission is the question of genre. Findlay works on all dramatic genres, while Neill and Bonavita mainly focus on

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2 As Henry Swinburne put it in his influential A Briefe Treatise of Testaments and Last Willes: "being encouraged with the example and patterne of their fathers filthinesse, they ["the brood of bastardes"] are not onely prone to follow their sinfull steppes, but do sometimes exceede both them and others in all kinde of wickednesse" (Swinburne 1590, 201). For discussions of other legal sources with similar viewpoints, see Findlay 1994, 23-28 and Bonavita 2017, 21-25.
3 Dates refer to the chronological limits for the year of first performance given in Harbage 2013.
}

Shakespearean tragedies and histories, but none of them systematically compare bastard characters from different genres. However, since genres often mediate cultural and political concerns differently, generic distinctions may help explain some of the differences between bastard characters that Findlay in particular notices. Another neglected question is that of literary historical development. Neill and Bonavita deal only with Elizabethan and early Jacobean drama, while Findlay covers 15881642 and groups works across the period according to the thematic binaries that structure her argument. She thereby highlights a historical continuity in the themes and motives related to bastardy, but the approach might obscure tendencies of change over time in the characterization of bastards.

In this study, we compare major bastard characters in comedies, tragedies and history plays from 1588-1642 to look for generic and historic patterns of characterization. We find that the most marked generic difference is that between comedies and tragedies, the two genres that make up most of our corpus and to which we dedicate most of our discussion. The difference in their characterization of illegitimacy, we argue, has to do with the social function of bastard characters in their respective dramatic universes. Briefly put, major bastard characters in tragedies almost invariably instigate strife, while comedy bastards more often play a part in the resolution of social conflicts. Historically, we find that there is a tendency towards a more positive depiction of bastards in the Caroline period than in earlier plays. Bonavita's view (echoing Neill) that "the bastard in early modern drama is almost invariably depicted as monstrous or evil" (Bonavita 2017, 15) thus holds for the earlier period they deal with, but not for Caroline drama. This development correlates with an increase in comedies with major bastard characters in Caroline drama and a decrease of major tragedy bastards. The generic and historical differences find emblematic expression in two of the most significant plays from the two ends of our historical spectrum, Shakespeare's tragedy King Lear and Richard Brome's comedy A Jovial Crew (1641), which we briefly compare at the end of this study.

Our results are built on a study of 20 bastard characters from the period using keyword analysis, a stylometric method developed in the field of corpus linguistics. We are particularly inspired by Jonathan Culpeper's work on characterization and keywords in Shakespearean drama \({ }^{4}\). While keyword analysis is good at capturing large-scale linguistic trends in a textual corpus, close reading and historical contextualization are required to make sense of the results. Methodologically, this article thus stands up for bastards by mixing quantitative and qualitative approaches in something approximating Andrew Piper's "computational hermeneutics", whose analytic process moves "back and forth between distant and close forms of reading in order to approach an imaginary conceptual center" (Piper 2015, 68). In our case, this centre is the bastard character in early modern drama.

\section*{Keyword Analysis: Method and Corpus}

We work from the assumption that dramatic characters are primarily characterized by the words they use (other sources of characterization are actions and the words other characters use about them). In our keyword analysis of bastard characters, we therefore compare a target corpus consisting of the words spoken by bastard characters with a reference corpus consisting of the words spoken by all other characters in the same plays. This comparison can be done using the raw count of words, but since this does not reflect the different sizes of the corpora, the more revealing approach is to compare the frequency with which specific words are used in the two corpora. We hereby find keywords or "stylemarkers" in the target corpus, that is "words whose frequencies differ significantly from their frequencies in a norm" (Culpeper 2014a, 11). Keywords, then, are words in the target corpus whose frequencies are significantly above or below those of the reference corpus. We call the first type positive keywords, the second negative. In our analysis, we focus on the positive keywords, because characters are primarily characterized by the words they use rather

\footnotetext{
4 For an introduction to linguistic characterization, see Culpeper 2001. For a keyword analysis of a Shakespeare play, see Culpeper 2014a and 2014b.
}
than by those words that they do not use or use less than other characters on average. We thus find clear semantic clusters of positive keywords, while the (fewer) negative keywords are less coherent with the exception of one grammatical category: first person plural pronouns. We include tables of negative keywords, but mainly refer to them when, as we shall see with the pronouns, they offer secondary evidence for the primary patterns found in the tables of positive keywords.

When we say that keywords are used "significantly" more (or less), we mean it in the sense of statistical significance, calculated using a measure of Log-Likelihood (LL), which has been shown to be useful when comparing corpora of different sizes (Rayson, Berridge, and Francis 2004). This technique compares the observed frequency of a word in the target corpus with an expected frequency derived from the reference corpus, in order to pinpoint statistically significant variations \({ }^{5}\). However, statistical significance values in and of themselves have been shown to be poor measures of keyness (Gabrielatos 2018). In order to counteract this, we incorporate a measure of what is known as the "effect size", understood as "a standardized measure [...] that expresses the practical importance of the effect observed in the corpus or corpora" (Brezina 2018, 14; see also Cumming 2012). We choose to work with Log Ratio (Hardie 2014) as our preferred measure of effect size, due to it being simple to calculate and easy to interpret \({ }^{6}\). Taken together, these two measures allow us to show which words most characterize the lines spoken by bastard characters relative to the lines of other characters in those same plays. Before we proceed to our results, we briefly present the process and decisions involved in compiling our corpora.

\footnotetext{
5 In this study, we use an LL score of \(6.63(\mathrm{p}<0.01)\) as the threshold for statistical significance.
\({ }^{6}\) 'Log Ratio' is shorthand for the binary logarithm of the ratio of the relative frequencies of a word in the reference and target corpus. By taking the binary logarithm, each successive point in the ratio represents a doubling of the magnitude of the difference between the two corpora studied. So a Log Ratio of 1 means that a feature is 2 times as likely to appear in the target corpus than in the reference corpus, a ratio of 2 means that it is 4 times as likely, etc.
}

Alison Findlay lists 70 plays from 1588 to 1642 containing bastard characters and characters "threatened with bastardy", that is characters who at some point believe that they are illegitimate, but turn out to be legitimate (Findlay 1994, 253-57). It is a tricky issue to decide which of these plays to include in our corpus. As Findlay shows, they can all yield information about cultural perceptions of bastardy. However, the category "threatened with bastardy" is rather fluid and includes characters who think they are bastards for several acts, such as Captain Ager in Middleton and Rowley's A Fair Quarrel (c. 1615-17), as well as characters like Arbaces in Beaumont and Fletcher's A King and No King (1611), whose legitimacy is quickly revealed. From a quantitative perspective, only a small fraction of Arbaces' words would reflect his (mistaken) identity as a bastard. Such differences led us to discard the plays with characters "threatened by bastardy" and build a corpus of confirmed bastard characters. We hereby lose some information, but gain in consistency by comparing characters with a shared trait. For the same reasons of consistency and comparability, we include only plays from three main genres: Tragedy (TR), Comedy (CO) and Histories (HI), using the genre labels provided by Alfred Harbage with some minor alterations \({ }^{7}\).

This process left us with a total of 28 plays ( \(\mathrm{CO}=15\); \(\mathrm{HI}=5\); \(\mathrm{TR}=8\) ) (Table 1). The plays were mostly downloaded in XML format from the Early Print Library \({ }^{8}\). Notable exceptions to this are those plays

\footnotetext{
7 Harbage (2013) lists Richard Zouche's The Sophister (c. 1614-20) and Heywood and Brome's The Late Lancashire Witches (1634) as respectively a "moral" and a "topical play". However, both plays were labeled as comedies when first printed in 1639 and 1634 respectively, and we do not see any reason to change this. Harbage calls W. Smith's The Hector of Germany (c. 1614-15) a "pseudo-history"; we agree with Jesse M. Lander that such labels reflect "modern standards of historical accuracy" (Lander 2006, 490) and thus simply term it a "history" (like its first print version from 1615). Arguably, the most troubling generic categorization with the biggest potential influence on our results is Shakespeare's Troilus and Cressida (1602-3). We count it among the tragedies, but we have run the analysis with the play in the comedy corpus, too, and although this leads to a little more overlapping between keywords in the two corpora, the difference is still clear.
8 This corpus contains some 860 plays written between 1550 and 1700, sampled from the transcriptions of EEBO-TCP, but linguistically annotated and manually
}
in our corpus that are attributed to Shakespeare, which, at the time of collection, were absent from the Early Print Library. For these we chose to use the editions of Shakespeare's plays found on Folger Digital Texts \({ }^{9}\). Lastly, we decided to exclude bastard characters with fewer than 500 spoken words from our study. The reasoning behind this was that such bastard characters were unlikely to be very developed characters, and so were less likely to yield valuable insight into the dramatic characterization of bastardy. This pruning gave a final target corpus comprising a total of 20 bastard characters in 19 plays ( \(\mathrm{CO}=9 ; \mathrm{HI}=3\); \(\mathrm{TR}=7\) ), with two bastards appearing in Nabbes' The Unfortunate Mother (1639) (Table 2). The bastards' dialogue comprises just over 47,000 words compared with just over 342,000 words in the reference corpus. With the corpora prepared in this manner, we were ready for our keyword analysis \({ }^{10}\). We first did an analysis of all the bastard characters compared to the whole target corpus in order to see how bastard characters are generally characterized. We then proceeded to do separate keyword analysis of the bastard characters in each of our three main genres in order to compare differences in characterization across genres.

\section*{Keywords I: Selfish Bastards?}

Table 3 shows the top 50 keywords of all bastard characters measured against the reference corpus. The keywords are ranked after their LL score with the highest score at the top \({ }^{11}\). The LL scores range from 39.36 to 7.56 . As mentioned in footnote 5 , this means that in principle all the keywords are statistically significant ( \(\mathrm{p} \leq\) 0.01 ). However, the most telling results are those with more than a

\footnotetext{
curated by Martin Mueller and his team at Northwestern University. For more about this process, see https://earlyprint.org.
\({ }^{9}\) These plays were downloaded via the public API available at https:// shakespeare.folger.edu.
10 The keyword analysis was conducted using the well-known corpus linguistics tool AntConc (Anthony 2017), with minimal adaptation to the default settings.
11 In order to draw out the most salient keywords, we excluded words that occurred less than 5 times. This filtering was performed manually outside of AntConc. We also manually excluded names, locations, and demonyms (a name for an inhabitant or native of a specific place).
}
few overall occurrences. For example, 5 instances of "ox" in a target corpus of 47,000 words hardly characterize bastard characters. We look for something more solid: results that have 1) a relatively high occurrence, 2) a significant frequency rate, and 3) results that form part of larger semantic clusters \({ }^{12}\). In addition, we need to consider the Log Ratio score of the tokens that meet these criteria to measure a cluster's overall effect in the corpus.

We find two such clusters in Table 3. The first (marked with *) has to do with first person references. "I", "my" "me", "am" are all in the top 10 and so form a solid pattern along with "self" in the 50th place. However, although the LL scores for these keywords are generally high, they have relatively low effect sizes - between 0.26 for " I " and 0.59 for "am". This is not surprising; most characters use first person singular pronouns, so even if bastards use them significantly more, their effect in terms of differentiating the two corpora is modest. However, the fact that we are dealing with not just one word, but a cluster of words widely distributed across the target corpus, makes us more confident that we are looking at a stylistic marker for bastard characters. Furthermore, the negative keywords (words used significantly less by bastard characters) point in the same direction (Table 4). First person plural pronouns ("we", "our", "us") that indicate collective identification are among the top scorers. Other personal pronouns like "her", "your", "you", "ye", "him", "they" are in the top 20.

The second cluster in Table 3 comprises words (marked with \(\dagger\) ) related to the concept of bastardy and its negative connotations in this historical period: "begot", "mother", "bastard(s)", "lechery", "father", "whore", "base", "birth", and "legitimate." Not all instances of these words necessarily refer to bastardy, but their cooccurrence and wide distribution across the corpus is hardly coincidental. The effect size of these more unusual words is predictably higher than for the first cluster, leaving little doubt that they characterize our target corpus.

\footnotetext{
12 Another relevant parameter is dispersal (see Culpeper 2014a, 20-21). In principle, if a word only occurs in a few texts, it is not representative for the whole corpus. But since we are looking at semantic clusters of related words, we consider the dispersal of the clusters rather than individual words.
}

The high frequency of first person references (and the relatively low frequency of other pronouns) indicates that bastard characters talk more about themselves than other characters. This might mean that they are particularly self-reflective or self-centred. This could be linked to the second cluster of words related to the negative perception of bastardy, perhaps indicating that bastards are more concerned with their individual identity because of the social stigma of illegitimacy. Perhaps a sign of this are the several central instances of self-characterization in our target corpus where first person references coexist with words from the bastardy cluster:

\section*{EDmund}

I should
have been that I am, had the maidenliest star in the
firmament twinkled on my bastardizing.
(Shakespeare, King Lear, I.ii.138-40) \({ }^{13}\)

Spurio
Adultery is my nature;
[...]
I feel it swell me; my revenge is just,
I was begot in impudent Wine and Lust.
(Middleton, The Revenger's Tragedy, I.ii.177, 190-91)

Philif
And I am I, howe'er I was begot.
(Shakespeare, King John, I.i.180)

\section*{Whetstone}

Howsoever I was begot, here you see I am,
And if my Parents went to it without fear or wit,
What can I help it.
(Brome and Heywood, The Late Lancashire Witches, I.i.115-17)

\footnotetext{
\({ }^{13}\) All quotations are from the editions used in the keyword analysis. King Lear appeared in print in different versions. The version used in this study is Folger Library's edition of the First Folio text. See https://shakespeare.folger.edu/ shakespeares-works/king-lear/an-introduction-to-this-text/.
}

All of these examples are from first acts, and mostly from the scenes in which the bastard characters first speak. From early on, these plays thus present the problematic relationship between bastardy and individual identity as a central component of their character. The subtle differences between the quotes indicate that this relationship can play out differently. The tragedy characters, Edmund and Spurio, directly link their inner nature to bastardy. Edmund denies the influence of stars, but not of "the lusty stealth of nature" with which he was begotten on his "composition and fierce quality" (I.ii.11-12). The "just" revenge Spurio in Thomas Middleton's The Revenger's Tragedy (1605-6) plans for his father's adultery is to lie with his stepmother. The two villains thus embody the notion that illegitimate children inherited the sins of their parents. They do not quietly accept their disadvantage, but the quotes above invite the audience to consider their rebellion against their fathers, legitimate half-brothers and indeed the social stigma of bastardy, to be a result of their transgressive bastard nature.

The cases of Philip Faulconbridge and Whetstone are different. The former at first denies that he is illegitimate, but when he learns that his father was Richard Lionheart, he embraces the fact because it helps his "mounting spirit" (I.i.212) to rise socially. As James P. Saeger remarks, this personal choice of genealogy is a sign of a "potential for self-determination, individual autonomy, and personal agency", which characterizes Faulconbridge throughout the play (Saeger 2001, 6). Faulconbridge is an ambitious individualist like Edmund and Spurio and displays some of the same traits as a potentially duplicitous outsider, before he in the end helps the legitimate heir to the throne \({ }^{14}\). However, contrary to the tragedy characters, Falconbridge does not experience bastardy as an obstacle, but as a stepping-stone. This divergence is a result of different responses to the social asymmetry between the parents of the bastard characters. In the three plays in question - and this is almost invariably the case for the bastard characters in our corpus

\footnotetext{
14 This ambivalence in Faulconbridge's character is discussed in Van de Water 1960. See Slights 2009 for a reading that explains the inconsistencies in Faulconbridge's character as the expression of a development of "self-reflective moral awareness" (218). The similarities between Edmund and Faulconbridge are also noted in Hunt 1997.
}
- bastard characters' fathers belong to a higher social stratum than their mothers. For tragedy bastards like Spurio and Edmund, their mothers exert a downward pull on their social status. The moral stain of maternal sin is also the stain of social inferiority. For Faulconbridge, the reverse is true. When his mother admits her infidelity, he thanks her for it, because it allows him to identify with his legendary father and enter the close circle of the king's counsellors. Bastardy holds a potential for upward mobility for Faulconbridge. But crucially, this is partly so because his father is dead, which means that Faulconbridge can benefit from his status without resorting to violence to take his place like Edmund and Spurio.

The motif in King John (1590-91) of the recovered high-status father with its positive potential of social elevation for the illegitimate child is picked up in later comedies, especially, as we shall see, by Richard Brome - but this time with living fathers (and thus a potential for comic resolution in family reconciliations). In Brome's early comedy with Thomas Heywood, The Late Lancashire Witches, the bastard character Whetstone does not follow this trajectory, but in the quote above he does challenge the social stigma of bastardy in a good-natured, naïve way by publicly advertising his base birth and asserting that he should be judged on his personal merits instead of the sins of his parents. These examples suggest that bastardy is a predominantly negative characteristic in tragedies, while it can have a more positive function in other genres. Our keyword analysis of the three genres in our corpus confirms this.

\section*{Keywords II: Tragedy, Comedy, History}

In the table of positive keywords for the tragedies (Table 5), we see a diminished but still important cluster of first person reference. On the list of negative keywords (Table 6), however, the first person plural pronouns ("we", "our", "us") have moved to the top with a more pronounced effect size than in the table for all plays, indicating that tragedy bastards more rarely identify with collectives. The second cluster relating to bastardy has a more
pronounced presence than in Table 3. Words from this cluster have moved to the top - "bastard" ( 19 out of 25 mentions in the corpus occur in the tragedies), "lechery" ( 7 out of 7 ) and "whore" ( 10 out of 13) - and additional related words like "sin" and "cuckold" also appear. The rise of "whore" and "sin" is perhaps an indication of the negative role of the mother for tragedy bastard characters. As Findlay puts it: "The quest for masculine selfhood is all the more difficult for bastards because their maternal legacy, which corrupts them at the point of origin, is so much more powerful" (Findlay 1994, 185). The bastardy cluster in Table 5 confirms the tendency in the quotes above, namely that tragedy bastard characters often embody contemporary negative cultural associations of bastardy. Their predominant negative role is further corroborated by the cluster of words in Table 5 (marked with \({ }^{\circ}\) ) that indicate violent rebellion ("sword", "kill", "jealousy", "ambition", "envy", "rise", "bleed", "die", etc. \({ }^{15}\).

These results seem to confirm previous studies that have noted a dialectic between social stigma and a need to assert individual worth in rebellious tragedy bastards like Edmund in King Lear and later characters modelled on him, like Spurio in The Revenger's Tragedy (Holdsworth 2017, 379), Antipater in Markham and Sampson's Herod and Antipater (c. 1619-22) (Markham and Sampson 1979, xxvii and 192) and Notho in Nabbes' The Unfortunate Mother. According to Findlay, such bastards respond to marginalization by striving to act as "autonomous subjects" with a "sovereignty of self" and "independence" (Findlay 1994, 48). She also notes that "[b]astard villains who cause disorder in the family and the State seem committed to an anarchic alternative, a world where the individual position is paramount" (119). Michael Neill similarly claims that "the stage bastard repeatedly insists on his own selfbegotten sufficiency in overreaching language that insolently travesties the divine 'I am'’ (Neill 2000a, 139). Our results confirm that this line of interpretation points to a central aspect of tragic

\footnotetext{
15 Without Troilus and Cressida in the tragedy corpus, the first person cluster is intact. The bastardy cluster is slightly diminished with 12 instances of "bastard", while "lechery" and "whore" disappear from the top 50. "Envy" and "bleed" disappear from the rebellion cluster, while "dead" (14 instances) enters.
}
bastard characters, but, as we shall see, it less clearly characterizes bastard characters from other genres.

If we move to the comedy table (Table 7), the picture is very different. The first person cluster is almost as prevalent as in Table 3 with " I " in the first place. The bastardy cluster, however, has all but disappeared. The only word in that cluster left from Table 3 is "father" \({ }^{16}\). This goes some way towards confirming the importance of the regained-father motif that we mentioned before and which we find in all of the comedies written solely by Brome in the corpus: The Sparagus Garden (1635), The Damoiselle (1637-38) and A Jovial Crew. In contrast to the negative social relations indicated by the "rebel words" in the tragedy table, we find in Table 7 words indicating positive social relations ("friends", "bless") as well as the second person pronoun "you" in the \(20^{\text {th }}\) place, indicating a measure of other-orientedness. It might thus seem that the bastards in the comedy corpus have achieved what Whetstone in The Late Lancashire Witches hoped for: to be judged as individuals rather than heirs of parental sins. To some extent, this is true of Brome's comedies, which carry a lot of weight in the comedy corpus, since he has authored 3 and co-authored 1 of the 9 plays. However, the comedy corpus is not as homogeneous as the tragedy corpus. The latter is dominated not so much by a single author as by a single character type whose earliest exemplar is Shakespeare's Edmund. The earliest plays of the comedy corpus - the anonymous A Knack to Know a Knave (1592), Shakespeare's Much Ado About Nothing (1598), Lording Barry's Ram Alley (1608-10) and Richard Zouche's The Sophister - all contain villainous bastard characters. In fact, Don John in Much Ado About Nothing is a rebel against his legitimate brother in line with the usurping tragedy bastards. The difference is that his rebellion has failed when the play begins and he is reduced to a brooding melancholic and petty schemer without any of Edmund's grandiloquent lamentations on bastardy. Only in later Caroline playwrights, Brome in particular, do we begin to encounter comedy bastard characters with more positive traits in

\footnotetext{
16 "Mother" (25 instances) is the only parent left on the tragedy list, but that is in part explained by its prevalence in James Shirley's tragedy The Politician (c. 1639), where the bastard character, Haraldus, uses it 18 times.
}
our corpus. The results in Table 7 thus do not reflect a uniformly positive view on bastards, but rather the absence in the earlier plays of an emphasis on bastardy as a specific problem for the bastard characters. Instead, these comedies simply assert the illegitimate status of their bastard characters and then rely on the audience's knowledge of the negative cultural associations of bastardy in order for this status to function as an off-hand explanation of the characters' villainy \({ }^{17}\).

In the table of positive keywords for the history plays (Table 9), the clusters from the general Table 3 are nearly absent. "Begot" and "mother" are the only remnants. Instead of the first person singular pronouns (one of which, "my", has moved to the list of negative keywords in Table 10), the plural "our" is in the top 49 (but with an LL score below the threshold) \({ }^{18}\). Alternative clusters indicate distinguishing features of the histories. Words like "honor", "land", "king(s)", "courage", "men" in the top 20 (marked with \(\square\) ) point to the hierarchy and masculine values of the feudal state, while words like "arms", "stir", "away", "bloody", "face", "hand" and "head" (marked with \(\Delta\) ) could be signals of the physicality of battle and revolt in which power and glory are lost and won. With the exception of the first scene of Shakespeare's King John, the focus in the small group of plays in this corpus is not on the bastard's inner struggle with his parental prehistory, but on personal identity as a function of group identity. In The Hector of Germany, the bastard Henry of Trastomare is not driven by any disadvantage related to bastardy to usurp the Spanish throne. He is simply not concerned with his illegitimate birth. The same goes for the eponymous Jack Straw in the anonymous history of the popular rebellion he led, and Falconbridge in Heywood's 1 Edward IV (1592-99). Instead, like in the early comedies mentioned above, their bastard status functions more like an easy 'explanation' to the audience of their violently overreaching characters.

\footnotetext{
\({ }^{17}\) With Troilus and Cressida in the comedy corpus, the first person cluster is intact. The bastardy cluster grows slightly: "bastard" (11 mentions), "lechery" (7) and "whore" (12) enter the top 50.
18 Only 49 keywords in the history plays met our filtering criteria (see note 11).
}

\section*{An Unexpected Encounter: Edmund and Springlove}

The most compelling finding in our keyword analysis, we believe, is the difference between the two largest sub-corpora in our study, tragedies and comedies, which, on closer inspection, indicates that a generally more positive characterization of bastard characters begins to appear in Caroline comedies and in particular in Richard Brome. This is an aspect of Brome's work that has not been treated independently in existing scholarship. However, Brome seems to have been conscious of the contrast his bastard characters represent to the tradition of usurping tragedy bastards. At least, he seems to present in Springlove, the bastard in his last comedy, A Jovial Crew, a knowing reversal of the most influential tragedy bastard character, Shakespeare's Edmund. A brief comparison between the two can help us better understand how and perhaps why bastard characters play a different role in Brome's work.

There is little precedent for comparing these two plays, whose tone could hardly be further apart. But Brome had already partly modelled one play, The Queen's Exchange (1629-32), on Lear (see Butler 1984, 265-66; Steggle 2004, 56); A Jovial Crew does contain a textual allusion to Lear \({ }^{19}\); and, most importantly, there are parallels in plot structure. Like Lear, A Jovial Crew has at its centre an aging authority figure, the country gentleman Oldrents, with only female heirs, Meriel and Rachel. They are estranged from their father because of the gloom and strictures of his "Rule and Government" (II.i.19) \({ }^{20}\) and decide to leave with their lovers to join 'a jovial crew' of vagabonds, " \([t]\) he onely Freemen of a Common-wealth" (II.i.198). They are led by Springlove, a foundling who has grown up with Oldrents and works as his steward but, it turns out, is in fact his bastard son. Springlove's mother was a vagabond, which (in this dramatic universe) explains his instinctive urge to abandon the estate against his master's will to enjoy the freedom of the open

\footnotetext{
19 An echo in III.i.471-72 of Lear's imaginary chastisement of the beadle (see Brome 2014, 183).
20 All quotations from \(A\) Jovial Crew are from Brome 1652, which does not contain scene divisions and line counts. For easier referencing, we give scenes and line numbers from equivalent lines in Brome 2014.
}
road. Structurally, Meriel and Rachel resemble Goneril and Regan, while Springlove echoes Edmund (the two plot lines in Lear are thus reduced to one in Brome's play). A Jovial Crew echoes Lear's central theme of travelling, too. When Oldrents' children leave him, he starts visiting friends, drinking and eating excessively, leaving his servant Randall to run his estate. This itineracy echoes Lear's travels and reliance on the hospitality of his daughters. There is an element of madness in this that can be read as a comic parallel to Lear's raving. As Oldrents' companion, Hearty, a Kent-like figure, comments: "If this be madness, 'tis a merry Fit" (II.ii.212).

An aging master with an increasingly errant behaviour, discontent female heirs, a rebellious bastard son - these can all be read as elements of a comedy version of King Lear, where, true to form, everyone is reconciled in the end. A Jovial Crew is not a parody or direct comic rewriting of Lear, but it clearly alludes to Shakespeare's play, a common practice among Caroline dramatists (see Butler 1984, 106-7 and Steggle 2004, 4). One effect of this is to alert us to the similarities and differences between the bastard characters in the two plays. Let us briefly consider some of them.

Firstly, Edmund and Springlove are both intimately tied to nature. Edmund's first monologue on bastardy begins: "Thou, Nature, art my goddess. To thy law / My services are bound" (I.ii.12). On Springlove's first appearance, he hears a nightingale and exclaims: "O, Sir, you hear I am call'd", and when Oldrents says he had hoped Springlove had changed, he replies: "You thought I had forsaken Nature then" (I.i.156-58). For both of them, nature is more than external reality (although for Springlove it is that, too). It is a super-personal, even divine force that forms their inner nature. This reflects their status as 'natural children', a common term for illegitimate children, and in particular their relationship to their mothers: Edmund's nature is a goddess; Springlove's desire for the open road is his maternal legacy. However, the similarity covers a considerable difference. For Edmund, nature resembles the Christian idea of man's fallen nature related to sinful woman. To make this nature his goddess is to rebel against his father and brother. In contrast, Springlove, true to his name, represents the
idea of female nature as regeneration, fertility and love, celebrated by comedy since Antiquity \({ }^{21}\).

To be a natural son thus means two different things in these plays. But in both cases, following nature is a move towards freedom from social constraints. We have already discussed this with respect to Edmund. In A Jovial Crew, the vagabonds embody personal freedom. As Springlove, who feels an "inborn strong desire of liberty" (I.i.252), says: "And among Beggars, each man is his own" (I.i.262). We noted in relation to tragic bastards a dialectic between social stigma and the need to assert an individual worth. This dialectic means that an imagined view from the outside is constitutive of the conflicted self-formation of the tragic rebels; they do not form their identity out of nothing, but in a dialogue with the social perception of bastardy. This is emblematically borne out in Edmund's first soliloquy:
```

EDMUND
why "bastard"? Wherefore "base",
When my dimensions are as well compact,
My mind as generous and my shape as true
As honest madam's issue? Why brand they us
With "base", with "baseness", "bastardy", "base", "base"
(Shakespeare, King Lear, I.ii.6-10)

```

For Edmund, the shame and outrage of the social categories (in quotation marks) drives his desire to overturn "[l]egitimate Edgar" (I.ii.17). In Springlove's case, the trajectory is reversed. His desire for personal liberty is a natural instinct, not a result of social exclusion. But he also experiences a moment of self-reflective shame on one of his excursions, when, dressed as a crippled beggar, he accidentally runs into his master. When Springlove retrospectively tells this story, he tellingly identifies with Oldrents' perspective:

\footnotetext{
21 Findlay does not compare the two characters directly, but notes the same fundamental difference in their connection to nature (Findlay 1994, 124 and 166).
}

> Springlove
> My head was dirty clouted, and this leg
> Swadled with Rags, the other naked, and
> My body clad, like his upon the Gibbet.
> Yet, He, with searching eyes, through all my Rags
> And counterfeit Postures, made discovery
> Of his Man Springlove; chid me into tears;
> And a confession of my forespent life.
> (Brome, A Jovial Crew, II.i.339-45)

Springlove is recognized and recognizes himself as a subject to social obligations and love. His challenge - and that of the play as a whole - is to reconcile the liberty of the open road with the duty of work and family. This happens when he is discovered to be Oldrents' illegitimate son and Oldrents bestows on him an independent estate worth 1,000 pounds a year, bypassing his legitimate heirs and the traditional restrictions on bastard's inheritance rights that provoked Edmund's move from inclusion in Gloucester's family to rebellion. Springlove moves from initial disobedience to a reconciliation of filial duty and liberty as a grateful heir with economic independence.

Whereas for Edmund bastardy is wholly negative, its function in A Jovial Crew is reminiscent of King John, but has a wider meaning. Springlove's recognition as Oldrents' bastard son is a step up the social ladder - from the obligations of a steward to the independence of landed wealth. In addition, there is no 'stain' of maternal sin, because his mother was an impoverished noblewoman who resorted to begging because Oldrents' grandfather cheated her family out of their estate. Bastardy, then, is not only an occasion for individual social mobility. Springlove is an embodiment of resolution in a time of impending national crisis: he reconciles liberty and filial duty, the common people and the gentry, and he expiates the crimes of the past, bringing together separated families, repairing a social fabric torn by old rents.

\section*{From Selfish to Benevolent Bastards: Concluding Reflections}

Edmund cannot bridge the gap between his mother and father, or between his individuality and social judgment. Conversely, Springlove, because he is a bastard, is able to straddle the social spheres and principles that need to be reconciled. Brome uses the bastard character in similar ways in The Sparagus Garden and The Damoiselle. Both Tim Hoyden in the former and Phillis in the latter are united with their lost fathers and thereby rise socially as well as expiate past crimes and reconcile old enemies. Brome's bastards, then, are no longer the evil incarnations of their parents' sin, but the blameless victims of parental transgressions and social prejudice as well as agents of their correction. This is particularly clear for Phillis, the only female bastard in our corpus, the child of a noblewoman, who was deserted by her lover and fled her family. Much like Springlove's (dead) mother in A Jovial Crew, this family history makes Phillis a beggar. Her true identity is discovered by her uncle and father, and Brome fully exploits the sentimental possibilities of these reunions with no lack of tears and sighs. This emotional investment in bastardy is also seen in another late Caroline drama, James Shirley's The Politician, the only tragedy bastard in our corpus who is not a villain. Indeed, the gentle Haraldus dies of grief when he discovers his mother's infidelity.

These examples point to a historical trend in our corpus: from the 1590s and 1600s, where major bastard characters are almost exclusively negative in all genres, to the 1630s and first years of the 1640s, where Brome's comedies in particular explore their sentimental, unifying potential. This is a trend, but not a unidirectional development. There are still villainous bastards in Caroline tragedies like Thomas Nabbes' The Unfortunate Mother, and Bostock in Shirley's comedy The Ball (1632) is a ridiculous pretender to nobility whose cowardice matches his low birth. Conversely, as we have seen, there is a partial precursor of Brome's upwardly mobile bastard characters in King John \({ }^{22}\).

\footnotetext{
22 Another forerunner (too minor for our corpus) is the cashier Cash in Ben Jonson's Every Man in His Humour (1598).
}

This historical trend seems to continue into the post-war era. Richard Brome's "influence on subsequent theatre was immense: numerous revivals and adaptations attest to his continuing success after the Restoration and into the eighteenth century" (Steggle 2004, 1). This influence perhaps contributed to the construction of a sentimentalized, virtuous bastard character \({ }^{23}\). In Bastards and Foundlings: Illegitimacy in Eighteenth-Century England, Lisa Zunshine argues that the eighteenth century witnessed an "excision of the vile bastard as a nearly ubiquitous literary type [...] accompanied by the introduction of the similarly ubiquitous virtuous foundling" (Zunshine 2005, 19). In comedies and novels, these foundlings were often sentimentalized female figures who turned out to be legally born and were duly reintegrated into society through inheritance. It is tempting to see Brome's bastard characters as precursors to and, in some cases, perhaps inspiration for these indulgently treated eighteenth-century foundlings.

A complex set of historical factors probably contributed to the tendency towards a more positive characterization of bastards in our corpus. One could point to the fact that the ratio of illegitimate births falls from a peak in the 1590s and 1600s to the 1640 s and stays low for the rest of the seventeenth century (Adair 1996, 49-50). One could speculate that, as a result, illegitimacy became a less contentious issue in Brome's time than in Shakespeare's. But this is doubtful. For one thing, since the plays were written in London for the local stage, they are more likely to reflect London trends than any correct conjecture of national average ratios involving great local and regional differences. According to Richard Adair, illegitimacy ratios in seventeenth-century London did not in fact follow the average national curve, but were consistently lower and flatter. This view is disputed (Fox and Ingram 2014, 31-32), but even if London ratios resembled the rest of the Southern regions (which were generally lower than the North and West), we cannot infer that public attitudes changed as a result. Indeed, there is little to suggest that they did. Laws targeting illegitimate children and

\footnotetext{
23 According to Tiffany Stern, A Jovial Crew "would become one of the first dramas mounted after the interregnum, perhaps even shaping what Restoration comedies were to become" (Brome 2014, 2).
}
particularly their mothers were passed throughout the period. And instead of declining illegitimacy ratios resulting in greater permissiveness, it is quite possibly the other way around: increasingly influential Puritan moralists and ministers' condemnation of illicit sexual activity might have led mothers to make greater efforts to avoid having illegitimate offspring and conceal it if they did, thus causing registered illegitimacy to fall in the 1640s (Adair 1996, 40-41).

If anything, the tendency towards a more positive characterization of bastards in our corpus contradicts prevailing official attitudes. Richard Brome's bastard characters could be a deliberate act of opposition against such attitudes, especially as they were embodied in and shaped by the literary tradition of rebellious Edmunds. But possibly his interest was not in the grievances of illegitimate children per se - one could argue that his plays in fact gloss over the misfortunes of real illegitimate children who were not miraculously reunited with their repenting, noble fathers. Instead, his interest might primarily have been the structural potential of this character type to bring about comic resolution and symbolically embody a wishful idea of shared values and forgotten interconnectedness beneath the contradictions of late Caroline society. Maybe as a combined result, in Brome's dramatic work illegitimate children stopped being just bastards.

In central aspects, the findings of our keyword analysis are in line with previous research. We have provided linguistic evidence for the notion that bastard characters tend to be self-oriented. But we have added that their self-assertion can take different paths depending on genre and historical time: Edmund recognizes himself through the social stereotypes as an outsider; Springlove sees himself through the eyes of his father as a member of the community. Compared to the range of plays and the detail in which Alison Findlay's book analyses them, our stylistic approach to a smaller corpus is limited. To compare our results to ideas about bastardy in early modern drama as a whole, a future quantitative study would need to find a way of also including minor or suspected bastard characters. However, by only considering the most talkative bastards in three genres and by combining linguistic
corpus analysis with close reading, we can more clearly see that genre contributed to the formation of different bastard types and spot signs of a gradual shift in preference for one type over another in our period. Finally, our method unexpectedly led us to consider Richard Brome, who is sometimes dismissed as derivative, as a central and original figure in the shift from selfish to benevolent bastards.

\section*{Table 1: List of all plays with confirmed bastard characters}
\begin{tabular}{|c|c|c|c|c|}
\hline Year \({ }^{24}\) & Author & Play & Genre & Bastard \\
\hline 1590 & Wilson, Robert & The Cobbler's Prophecy & CO & Ruina (f) \\
\hline 1590 & Shakespeare, William & 1 Henry VI & HI & Bastard of Orleans \\
\hline 1591 & Anon. & Jack Straw & HI & Jack Straw \\
\hline 1591 & Shakespeare, William & King John & HI & Philip \\
\hline 1592 & Anon. & A Knack to Know a Knave & CO & Perin \\
\hline 1594 & S., W. & Locrine & TR & Sabren (f) \\
\hline 1598 & Shakespeare, William & Much Ado About Nothing & CO & Don John \\
\hline 1598 & Jonson, Ben & Every Man in His Humour & CO & Thomas Cash \\
\hline 1599 & Heywood, Thomas & 1 Edward IV & HI & Faulconbridge \\
\hline 1602 & Shakespeare, William & Troilus and Cressida & TR & Thersites \\
\hline 1605 & Shakespeare, William & King Lear & TR & Edmund \\
\hline 1606 & Middleton, Thomas & The Revenger's Tragedy & TR & Spurio \\
\hline 1608 & Barry, Lording & Ram Alley & CO & Throat \\
\hline 1613 & Middleton, Thomas & A Chaste Maid in Cheapside & CO & Wat; Nick \\
\hline 1614 & Zouche, Richard & The Sophister & CO & Fallacy \\
\hline 1614 & Smith, Wentworth (?) & The Hector of Germany, or The Palsgrave, Prime Elector & HI & Henry of Trastomare \\
\hline 1617 & Middleton, T. and Rowley, W. & A Fair Quarrel & CO & Captain Ager \\
\hline 1622 & Markham, Gervase & Herod and Antipater & TR & Antipater \\
\hline 1622 & Dekker, Thomas & The Noble Spanish Soldier & TR & Sebastian \\
\hline 1632 & Shirley, James & The Ball & CO & Bostock \\
\hline 1632 & Tatham, John & Love Crowns the End & CO & Scrub \\
\hline 1634 & Heywood, T. and Brome, R. & The Late Lancashire Witches & CO & Whetstone \\
\hline 1635 & Brome, Richard & The Sparagus Garden & CO & Tim Hoyden \\
\hline 1638 & Brome, Richard & The Damoiselle, or The New Ordinary & CO & Phyllis (f) \\
\hline 1639 & Nabbes, Thomas & The Unfortunate Mother & TR & Spurio; Notho \\
\hline 1639 & Shirley, James & The Politician & TR & Haraldus \\
\hline 1640 & Brome, Richard & The Court Beggar & CO & Boy \\
\hline 1641 & Brome, Richard & A Jovial Crew, or The Merry Beggars & CO & Springlove \\
\hline
\end{tabular}

\footnotetext{
24 Most likely year of first performance given by Harbage 2013.
}

Table 2: Bastard characters with +500 words included in this study
\begin{tabular}{lllll}
\hline Year & Author & Play & Genre & Bastard \\
& & & \\
1591 & Anon. & Jack Straw & HI & Jack Straw \\
1591 & Shakespeare, William & King John & HI & Philip \\
1592 & Anon. & A Knack to Know a Knave & CO & Perin \\
1598 & Shakespeare, William & Much Ado About Nothing & CO & Don John \\
1599 & Heywood, Thomas & 1 Edward IV & Faulconbridge \\
1602 & Shakespeare, William & Troilus and Cressida & TR & Thersites \\
1605 & Shakespeare, William & King Lear & Edmund \\
1606 & Middleton, Thomas & The Revenger's Tragedy & TR & Spurio \\
1608 & Barry, Lording & Ram Alley & TR & Throat \\
1614 & Zouche, Richard & The Sophister & CO & Fallacy \\
1614 & Smith, Wentworth (?) & The Hector of Germany, or The Palsgrave, Prime Elector & HI & Henry of Trastomare \\
1622 & Markham, Gervase & Herod and Antipater & TR & Antipater \\
1632 & Shirley, James & The Ball & CO & Bostock \\
1634 & Heywood, T. and Brome, R. & The Late Lancashire Witches & CO & Whetstone \\
1635 & Brome, Richard & The Sparagus Garden & CO & Tim Hoyden \\
1638 & Brome, Richard & The Damoiselle, or The New Ordinary & CO & Phyllis (f) \\
1639 & Nabbes, Thomas & The Unfortunate Mother & TR & Spurio; Notho \\
1639 & Shirley, James & The Politician & TR & Haraldus \\
1641 & Brome, Richard & A Jovial Crew, or The Merry Beggars & CO & Springlove \\
& & & & \\
\hline
\end{tabular}

Table 3: Positive keywords for all bastard characters
\begin{tabular}{|c|c|c|c|c|c|}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 21 & + & 39.36 & 3.0765 & aunt \\
\hline 2 & 1422 & + & 39.19 & 0.2602 & I* \\
\hline 3 & 17 & + & 32.61 & 3.1342 & acquaintance \\
\hline 4 & 34 & + & 26.99 & 1.6936 & wit \\
\hline 5 & 766 & + & 25.32 & 0.2881 & my * \\
\hline 6 & 493 & + & 23.06 & 0.3462 & me* \\
\hline 7 & 15 & + & 22.43 & 2.591 & begot \({ }^{+}\) \\
\hline 8 & 32 & + & 21.62 & 1.5321 & sword \\
\hline 9 & 5 & + & 21.08 & 6.176 & calfskin \\
\hline 10 & 150 & + & 18.84 & 0.587 & am * \\
\hline 11 & 55 & + & 18.01 & 0.9988 & mother \({ }^{+}\) \\
\hline 12 & 24 & + & 16.64 & 1.5564 & bastard \({ }^{+}\) \\
\hline 13 & 5 & + & 15.93 & 5.176 & tomorrow \\
\hline 14 & 23 & + & 15.75 & 1.5447 & small \\
\hline 15 & 9 & + & 15.32 & 2.8541 & ignorance \\
\hline 16 & 14 & + & 14.58 & 2.0176 & heads \\
\hline 17 & 7 & + & 14.51 & 3.3395 & lechery \({ }^{+}\) \\
\hline 18 & 84 & + & 13.4 & 0.6689 & father \({ }^{+}\) \\
\hline 19 & 5 & + & 13.22 & 4.176 & dad \({ }^{+}\) \\
\hline 20 & 53 & + & 13.15 & 0.8541 & gentleman \\
\hline 21 & 7 & + & 13.12 & 3.0765 & statute \\
\hline 22 & 13 & + & 13.05 & 1.9695 & whore \({ }^{+}\) \\
\hline 23 & 26 & + & 12.54 & 1.2507 & base \({ }^{+}\) \\
\hline 24 & 67 & + & 12.24 & 0.7205 & could \\
\hline 25 & 17 & + & 12.12 & 1.584 & birth \({ }^{+}\) \\
\hline 26 & 7 & + & 11.92 & 2.8541 & scurvy \\
\hline 27 & 5 & + & 11.27 & 3.591 & jests \\
\hline 28 & 5 & + & 11.27 & 3.591 & ox \\
\hline 29 & 15 & + & 11.22 & 1.6317 & clear \\
\hline 30 & 7 & + & 9.91 & 2.4915 & satisfy \\
\hline 31 & 5 & + & 9.75 & 3.176 & contradiction \\
\hline 32 & 5 & + & 9.75 & 3.176 & legitimate \({ }^{+}\) \\
\hline 33 & 31 & + & 9.08 & 0.9379 & friends \\
\hline 34 & 7 & + & 9.07 & 2.3395 & stole \\
\hline 35 & 11 & + & 9.02 & 1.7285 & lye \\
\hline 36 & 9 & + & 8.8 & 1.9365 & clown \\
\hline 37 & 8 & + & 8.51 & 2.0467 & cloak \\
\hline 38 & 8 & + & 8.51 & 2.0467 & complement \\
\hline 39 & 5 & + & 8.51 & 2.8541 & doubts \\
\hline 40 & 5 & + & 8.51 & 2.8541 & drinks \\
\hline 41 & 5 & + & 8.51 & 2.8541 & esteem \\
\hline 42 & 8 & + & 8.51 & 2.0467 & proclaim \\
\hline 43 & 5 & + & 8.51 & 2.8541 & sleeve \\
\hline 44 & 225 & + & 8.31 & 0.307 & by \\
\hline 45 & 7 & + & 8.3 & 2.202 & nobility \\
\hline 46 & 6 & + & 8.25 & 2.439 & bastards \({ }^{+}\) \\
\hline 47 & 6 & + & 8.25 & 2.439 & opposition \\
\hline 48 & 10 & + & 8.11 & 1.7166 & slaves \\
\hline 49 & 10 & + & 7.63 & 1.6524 & pox \\
\hline 50 & 83 & + & 7.56 & 0.4944 & self * \\
\hline
\end{tabular}

First person reference \(=\) *; Bastardy \(=\dagger\)

Table 4: Negative keywords for all bastard characters
\begin{tabular}{|c|c|c|c|c|c|}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 108 & - & 43.32 & -0.8668 & we \\
\hline 2 & 88 & - & 29.3 & -0.7976 & our \\
\hline 3 & 6 & - & 18.92 & -2.0528 & daughter \\
\hline 4 & 155 & - & 17.67 & -0.4864 & her \\
\hline 5 & 11 & - & 14.13 & -1.4347 & yes \\
\hline 6 & 379 & - & 14.06 & -0.2842 & your \\
\hline 7 & 7 & - & 13.38 & -1.6873 & wee \\
\hline 8 & 5 & - & 11.81 & -1.8352 & boy \\
\hline 9 & 762 & - & 10.09 & -0.1715 & you \\
\hline 10 & 15 & - & 8.93 & -1.0335 & ye \\
\hline 11 & 18 & - & 8.67 & -0.9418 & house \\
\hline 12 & 185 & - & 8.6 & -0.3176 & him \\
\hline 13 & 39 & - & 8.5 & -0.6582 & us \\
\hline 14 & 33 & - & 8.26 & -0.7015 & son \\
\hline 15 & 12 & - & 8.24 & -1.1001 & grace \\
\hline 16 & 10 & - & 7.27 & -1.1278 & prince \\
\hline 17 & 103 & - & 7.24 & -0.3872 & they \\
\hline 18 & 168 & - & 6.96 & -0.3005 & sir \\
\hline 19 & 36 & - & 6.8 & -0.6163 & has \\
\hline 20 & 28 & - & 6.8 & -0.6917 & before \\
\hline 21 & 215 & - & 6.42 & -0.2565 & so \\
\hline 22 & 5 & - & 6.3 & -1.4239 & want \\
\hline 23 & 5 & - & 6.15 & -1.409 & merry \\
\hline 24 & 8 & - & 5.9 & -1.1346 & woman \\
\hline 25 & 91 & - & 5.85 & -0.3712 & she \\
\hline 26 & 10 & - & 5.69 & -1.0138 & fellow \\
\hline 27 & 65 & - & 4.94 & -0.402 & love \\
\hline 28 & 329 & - & 4.93 & -0.1833 & for \\
\hline 29 & 16 & - & 4.89 & -0.768 & long \\
\hline 30 & 26 & - & 4.81 & -0.6104 & pray \\
\hline 31 & 5 & - & 4.63 & -1.2503 & bid \\
\hline 32 & 8 & - & 4.58 & -1.0163 & child \\
\hline 33 & 108 & - & 4.16 & -0.2904 & good \\
\hline 34 & 41 & - & 3.89 & -0.4466 & tell \\
\hline 35 & 6 & - & 3.86 & -1.0688 & sent \\
\hline
\end{tabular}

Table 5: Positive keywords for tragedy bastard characters
\begin{tabular}{|c|c|c|c|c|c|}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 19 & + & 34.1 & 2.6512 & bastard \({ }^{+}\) \\
\hline 2 & 5 & + & 30.21 & 7.6079 & honor \({ }^{\circ}\) \\
\hline 3 & 7 & + & 26.49 & 4.7714 & lechery \({ }^{+}\) \\
\hline 4 & 17 & + & 25.15 & 2.329 & fool \\
\hline 5 & 18 & + & 23.28 & 2.1339 & sword \({ }^{\circ}\) \\
\hline 6 & 311 & + & 23.02 & 0.4195 & my* \\
\hline 7 & 16 & + & 22.67 & 2.2636 & sin \({ }^{+}\) \\
\hline 8 & 10 & + & 21.63 & 3.0229 & whore \({ }^{+}\) \\
\hline 9 & 7 & + & 21.26 & 3.9234 & ignorance \\
\hline 10 & 202 & + & 20.01 & 0.4909 & me* \\
\hline 11 & 8 & + & 19.38 & 3.2859 & error \\
\hline 12 & 5 & + & 18.24 & 4.6079 & legitimate \({ }^{+}\) \\
\hline 13 & 49 & + & 17.13 & 0.9788 & king \\
\hline 14 & 6 & + & 16.96 & 3.701 & satisfy \\
\hline 15 & 11 & + & 16.9 & 2.3878 & birth \({ }^{+}\) \\
\hline 16 & 5 & + & 16.85 & 4.2859 & drinks \\
\hline 17 & 5 & + & 16.85 & 4.2859 & sleeve \\
\hline 18 & 17 & + & 16.38 & 1.7735 & kill \({ }^{\circ}\) \\
\hline 19 & 5 & + & 14.61 & 3.8005 & scurvy \\
\hline 20 & 15 & + & 14.59 & 1.7834 & duty \\
\hline 21 & 7 & + & 14.45 & 2.9234 & begot \({ }^{+}\) \\
\hline 22 & 14 & + & 14.39 & 1.8454 & wit \\
\hline 23 & 25 & + & 14.21 & 1.2932 & mother \({ }^{+}\) \\
\hline 24 & 11 & + & 14.19 & 2.1307 & knowledge \\
\hline 25 & 6 & + & 13.22 & 3.0636 & jealousy \({ }^{\circ}\) \\
\hline 26 & 8 & + & 13 & 2.4786 & ambition \({ }^{\circ}\) \\
\hline 27 & 516 & + & 12.13 & 0.2296 & I* \\
\hline 28 & 11 & + & 11.72 & 1.8874 & crown \\
\hline 29 & 9 & + & 11.64 & 2.1339 & fears \\
\hline 30 & 7 & + & 11.57 & 2.5083 & envy \({ }^{\circ}\) \\
\hline 31 & 5 & + & 11.43 & 3.1484 & instruct \\
\hline 32 & 7 & + & 11.17 & 2.4494 & brain \\
\hline 33 & 70 & + & 10.18 & 0.6047 & would \\
\hline 34 & 16 & + & 10.15 & 1.3791 & nature \\
\hline 35 & 7 & + & 9.72 & 2.2353 & rise \({ }^{\circ}\) \\
\hline 36 & 29 & + & 9.5 & 0.9443 & could \\
\hline 37 & 15 & + & 9.29 & 1.3599 & duke \\
\hline 38 & 6 & + & 8.63 & 2.2859 & ass \\
\hline 39 & 6 & + & 8.63 & 2.2859 & bleed \({ }^{\circ}\) \\
\hline 40 & 5 & + & 8.33 & 2.5204 & cuckold \({ }^{+}\) \\
\hline 41 & 5 & + & 8.33 & 2.5204 & innocence \\
\hline 42 & 25 & + & 8.05 & 0.9355 & both \\
\hline 43 & 76 & + & 8.04 & 0.5101 & thy \\
\hline 44 & 5 & + & 7.92 & 2.438 & cure \\
\hline 45 & 5 & + & 7.92 & 2.438 & moon \\
\hline 46 & 11 & + & 7.68 & 1.46 & act \\
\hline 47 & 11 & + & 7.52 & 1.4416 & base \({ }^{+}\) \\
\hline 48 & 14 & + & 7.48 & 1.2478 & kings \\
\hline 49 & 8 & + & 7.2 & 1.701 & die \({ }^{\circ}\) \\
\hline 50 & 11 & + & 7.2 & 1.4055 & something \\
\hline
\end{tabular}

First person reference \(=*\); Bastardy \(=\dagger\); Rebellion \(=\circ\)

Table 6: Negative keywords for tragedy bastard characters
\begin{tabular}{|c|c|c|c|c|c|}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 25 & - & 48.76 & -1.66 & we \\
\hline 2 & 224 & - & 30.26 & -0.5059 & you \\
\hline 3 & 24 & - & 23.27 & -1.2402 & our \\
\hline 4 & 7 & - & 14.56 & -1.7044 & us \\
\hline 5 & 96 & - & 14.08 & -0.5284 & for \\
\hline 6 & 49 & - & 13.79 & -0.7159 & her \\
\hline 7 & 7 & - & 11.8 & -1.5649 & tell \\
\hline 8 & 20 & - & 11.15 & -0.9752 & lord \\
\hline 9 & 5 & - & 11.03 & -1.7453 & before \\
\hline 10 & 129 & - & 10.92 & -0.4072 & your \\
\hline 11 & 18 & - & 8.88 & -0.9235 & man \\
\hline 12 & 30 & - & 8.19 & -0.7065 & good \\
\hline 13 & 87 & - & 6.85 & -0.3939 & this \\
\hline 14 & 8 & - & 6.7 & -1.1653 & most \\
\hline 15 & 26 & - & 5.85 & -0.6466 & well \\
\hline 16 & 5 & - & 5.75 & -1.3346 & poor \\
\hline 17 & 6 & - & 5.55 & -1.2166 & been \\
\hline 18 & 62 & - & 5.27 & -0.4091 & all \\
\hline 19 & 7 & - & 4.83 & -1.0716 & pray \\
\hline 20 & 66 & - & 4.62 & -0.3727 & him \\
\hline 21 & 12 & - & 3.94 & -0.7693 & has \\
\hline
\end{tabular}

Table 7: Positive keywords for comedy bastard characters
\begin{tabular}{|c|c|c|c|c|c|}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 49 & + & 50.58 & 1.8707 & gentleman \\
\hline 2 & 17 & + & 49.7 & 3.9014 & aunt \\
\hline 3 & 738 & + & 50.49 & 0.41 & I* \\
\hline 4 & 15 & + & 46.24 & 4.0834 & acquaintance \\
\hline 5 & 21 & + & 34.69 & 2.5433 & small \\
\hline 6 & 31 & + & 28.43 & 1.7384 & money \\
\hline 7 & 20 & + & 23.98 & 2.0579 & wit \\
\hline 8 & 7 & + & 22.31 & 4.2063 & statute \\
\hline 9 & 25 & + & 22.04 & 1.697 & came \\
\hline 10 & 31 & + & 21.77 & 1.4787 & gentlemen \\
\hline 11 & 24 & + & 21.19 & 1.6985 & friends \\
\hline 12 & 369 & + & 20.59 & 0.3642 & my* \\
\hline 13 & 9 & + & 19.35 & 3.0664 & clown \\
\hline 14 & 8 & + & 18.04 & 3.1765 & complement \\
\hline 15 & 5 & + & 18.01 & 4.7209 & jests \\
\hline 16 & 78 & + & 17.6 & 0.7734 & am * \\
\hline 17 & 81 & + & 17.21 & 0.7482 & know \\
\hline 18 & 7 & + & 16.81 & 3.3318 & nobility \\
\hline 19 & 9 & + & 15.08 & 2.5689 & lye \\
\hline 20 & 473 & + & 14.96 & 0.2704 & you \\
\hline 21 & 14 & + & 14.61 & 1.8844 & beg \\
\hline 22 & 7 & + & 14.5 & 2.9839 & cloak \\
\hline 23 & 6 & + & 13.93 & 3.2469 & stole \\
\hline 24 & 7 & + & 12.63 & 2.7038 & season \\
\hline 25 & 48 & + & 12.41 & 0.8341 & self* \\
\hline 26 & 16 & + & 12.25 & 1.5576 & uncle \\
\hline 27 & 14 & + & 12.17 & 1.6827 & gracious \\
\hline 28 & 13 & + & 12.08 & 1.7536 & amongst \\
\hline 29 & 5 & + & 11.89 & 3.3058 & opposition \\
\hline 30 & 8 & + & 11.67 & 2.34 & heads \\
\hline 31 & 226 & + & 11.67 & 0.3508 & me* \\
\hline 32 & 9 & + & 10.52 & 2.0245 & able \\
\hline 33 & 6 & + & 10.05 & 2.5689 & lawyers \\
\hline 34 & 34 & + & 9.51 & 0.8717 & could \\
\hline 35 & 25 & + & 9.38 & 1.0278 & master \\
\hline 36 & 20 & + & 9.08 & 1.1459 & law \\
\hline 37 & 8 & + & 9.06 & 1.9839 & ten \\
\hline 38 & 41 & + & 9.04 & 0.764 & father \({ }^{+}\) \\
\hline 39 & 10 & + & 8.76 & 1.6911 & bless \\
\hline 40 & 7 & + & 8.25 & 2.0364 & gentlewoman \\
\hline 41 & 22 & + & 8.22 & 1.0255 & right \\
\hline 42 & 8 & + & 8.14 & 1.8546 & clear \\
\hline 43 & 18 & + & 7.59 & 1.0985 & thank \\
\hline 44 & 13 & + & 7.43 & 1.3093 & hundred \\
\hline 45 & 7 & + & 7.3 & 1.8844 & lend \\
\hline 46 & 6 & + & 7.12 & 2.0453 & pox \\
\hline 47 & 53 & + & 6.68 & 0.5646 & some \\
\hline 48 & 8 & + & 6.35 & 1.5916 & themselves \\
\hline 49 & 198 & + & 6.12 & 0.2689 & but \\
\hline 50 & 5 & + & 5.99 & 2.0579 & enjoy \\
\hline
\end{tabular}

First person reference \(=*\); Bastardy \(=\dagger\); Rebellion \(={ }^{\circ}\)

Table 8: Negative keywords for comedy bastard characters
\begin{tabular}{cccccc}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 42 & - & 49.24 & -1.33 & we \\
2 & 25 & - & 36.76 & -1.4834 & our \\
3 & 29 & - & 17.17 & -1.0052 & thee \\
4 & 8 & - & 14.47 & -1.616 & son \\
5 & 40 & - & 11.2 & -0.7179 & thy \\
6 & 14 & - & 10.83 & -1.1306 & king \\
7 & 25 & - & 10.2 & -0.852 & o \\
8 & 5 & - & 7.4 & -1.4886 & ye \\
9 & 483 & - & 6.7 & -0.1692 & the \\
10 & 8 & - & 5.59 & -1.0822 & away \\
11 & 10 & - & 5.34 & -0.961 & heart \\
12 & 9 & - & 5.33 & -1.0061 & true \\
13 & 7 & - & 5.12 & -1.1036 & brother \\
14 & 6 & - & 5.05 & -1.1726 & honor \\
15 & 18 & - & 4.64 & -0.6917 & did \\
16 & 25 & - & 4.59 & -0.5914 & such \\
17 & 9 & - & 4.56 & -0.9389 & life \\
18 & 6 & - & 4.26 & -1.0894 & god \\
19 & 96 & - & 3.94 & -0.2899 & so \\
20 & 29 & - & 3.84 & -0.51 & us \\
& & & & & \\
\hline
\end{tabular}

Table 9: Positive keywords for history bastard characters
\begin{tabular}{|c|c|c|c|c|c|}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 5 & + & 37.61 & 8.7133 & calfskin \\
\hline 2 & 5 & + & 37.61 & 8.7133 & honor \({ }^{\text {a }}\) \\
\hline 3 & 69 & + & 27.29 & 1.0272 & thou \\
\hline 4 & 15 & + & 24.68 & 2.4156 & land \({ }^{\square}\) \\
\hline 5 & 6 & + & 20.1 & 3.9763 & commodity \\
\hline 6 & 6 & + & 19.53 & 3.8889 & limbs \\
\hline 7 & 29 & + & 17.92 & 1.3275 & king \({ }^{\text {a }}\) \\
\hline 8 & 6 & + & 17.07 & 3.5169 & lion \\
\hline 9 & 5 & + & 16.37 & 3.9059 & didst \\
\hline 10 & 12 & + & 16.23 & 2.1308 & kings \({ }^{\square}\) \\
\hline 11 & 9 & + & 14.39 & 2.3715 & wilt \\
\hline 12 & 5 & + & 14.37 & 3.5434 & begot \({ }^{+}\) \\
\hline 13 & 42 & + & 13.47 & 0.9149 & on \\
\hline 14 & 6 & + & 12.91 & 2.8889 & rascal \\
\hline 15 & 9 & + & 12.67 & 2.1862 & arms \(\triangle\) \\
\hline 16 & 5 & + & 11.44 & 3.0128 & stir \({ }^{\triangle}\) \\
\hline 17 & 14 & + & 11.4 & 1.5621 & mother \({ }^{+}\) \\
\hline 18 & 6 & + & 11.39 & 2.6544 & mouth \\
\hline 19 & 5 & + & 11.14 & 2.9584 & courage \\
\hline 20 & 20 & + & 10.57 & 1.2134 & men \({ }^{-}\) \\
\hline 21 & 155 & + & 10.23 & 0.3887 & of \\
\hline 22 & 252 & + & 10.22 & 0.2997 & the \\
\hline 23 & 16 & + & 9.85 & 1.3253 & away \(\triangle\) \\
\hline 24 & 5 & + & 9.34 & 2.6258 & bloody \(\triangle\) \\
\hline 25 & 12 & + & 8.56 & 1.4449 & whom \\
\hline 26 & 9 & + & 8.46 & 1.7033 & face \({ }^{\triangle}\) \\
\hline 27 & 5 & + & 8.29 & 2.4279 & damned \\
\hline 28 & 27 & + & 8.29 & 0.8936 & like \\
\hline 29 & 67 & + & 8.2 & 0.5416 & as \\
\hline 30 & 13 & + & 8.12 & 1.3369 & doth \\
\hline 31 & 14 & + & 7.66 & 1.2387 & hand \(\triangle\) \\
\hline 32 & 11 & + & 7.66 & 1.4245 & head \(\triangle\) \\
\hline 33 & 6 & + & 7.06 & 1.954 & seek \\
\hline 34 & 73 & + & 6.53 & 0.4584 & this \\
\hline 35 & 8 & + & 6.48 & 1.5585 & thine \\
\hline 36 & 35 & + & 6.41 & 0.6736 & thee \\
\hline 37 & 5 & + & 6.04 & 1.9854 & field \\
\hline 38 & 5 & + & 5.65 & 1.9059 & lie \\
\hline 39 & 8 & + & 5.5 & 1.4141 & get \\
\hline 40 & 7 & + & 5.39 & 1.5122 & villain \\
\hline 41 & 11 & + & 5.34 & 1.1573 & whose \\
\hline 42 & 39 & + & 5.16 & 0.5656 & our \\
\hline 43 & 6 & + & 4.82 & 1.5501 & follow \\
\hline 44 & 42 & + & 4.78 & 0.5216 & if \\
\hline 45 & 6 & + & 4.65 & 1.5169 & hang \\
\hline 46 & 6 & + & 4.56 & 1.5006 & doubt \\
\hline 47 & 9 & + & 4.28 & 1.1434 & right \\
\hline 48 & 12 & + & 4.22 & 0.9651 & thus \\
\hline 49 & 5 & + & 4.16 & 1.584 & city \\
\hline
\end{tabular}

Bastardy = †; Masculinity, hierarchy, feudalism = \(\quad\); Battle, physicality \(=\Delta\)

Table 10: Negative keywords for history bastard characters
\begin{tabular}{cccccc}
\hline Index & Total & Direction & LL & Log Ratio & Word \\
\hline 1 & 65 & - & 58.71 & -1.1855 & you \\
2 & 14 & - & 19.03 & -1.4178 & her \\
3 & 16 & - & 13.87 & -1.1709 & are \\
4 & 10 & - & 9.42 & -1.2145 & they \\
5 & 7 & - & 7.08 & -1.2525 & can \\
6 & 6 & - & 6.65 & -1.3021 & love \\
7 & 5 & - & 6.2 & -1.3662 & too \\
8 & 12 & - & 6.05 & -0.923 & good \\
9 & 40 & - & 5 & -0.4852 & have \\
10 & 86 & - & 4.81 & -0.3296 & my \\
11 & 110 & - & 4.54 & -0.2842 & a \\
12 & 9 & - & 4.44 & -0.9145 & which \\
& & & & & \\
\hline
\end{tabular}

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\title{
Does It Matter that Quantitative Analysis Cannot Deal with Theatrical Performance?
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The short answer is "Yes, it matters", but only in that any critical method distinct enough to do some things well is bound to do other things less well and still others not at all. The problem is not that quantitative analysis (QA) fails to be all things to all people, but that QA practitioners too often misinterpret what they can and cannot do. I am concerned here with a particular instance of misprision, fixed on the longstanding controversy in Shakespeare studies between literary and theatrical value. When QA practitioners claim that, though unable to deal with performance, they can nonetheless execute textual analysis, they misrecognize the really consequential distinction between what their methods can and cannot provide: the precise measurement of linguistic data, such as might identify distinct authorial signatures, on the one hand; the interpretation of
a variety of theatrical and/or textual effects, such as might produce critical understanding, on the other. And then, failing to recognize the actual strengths and limitations of their methods, or to act on the basis of the recognition where they do, QA practitioners extend their operations into areas outside their own jurisdiction. Such expansive designs are damaging in the first instance to the overreachers themselves. Unfulfillable promises only reinforce the suspicions, still legion among Shakespeareans, that sequester QA in a negligible space. The damage extends to the technoskeptics on the other side as well, who will find themselves confirmed in their prejudices and therefore even less likely to take advantage of the real benefits QA makes available to them.

\section*{Part 1. The Page versus the Stage: Once More unto the Breach}

In Style, Computers, and Early Modern Drama, Hugh Craig and Brett Greatley-Hirsch include a chapter on "Company Style", focused on the question whether Renaissance repertory companies specialized in particular kinds of drama. Employing "the robust quantitative methods of computational stylistics" laid out at the beginning of the book, they proceed first "to generate distinct profiles for each repertory company" by "construct[ing] a corpus containing only those plays with well-attributed first companies and first performed between 1581 and 1594". They then "project the wordfrequency counts for the 500 most frequent words across the corpus [...] into a two-dimensional space" in order to represent the points of affinity on a scatterplot. When the scatterplot reveals that there are "no tight discrete groupings" within each company but that the "points belonging to almost every repertory company are interspersed with one another", Craig and Greatley-Hirsch conclude that "the plays belonging to different repertory companies share similar stylistic traits" (Craig and Greatley-Hirsch 2017, 167-70). When, on the other hand, the same quantitative methods allow them to discern distinct and clear authorial identities even in plays written for different companies, Craig and Greatley-Hirsch conclude that authorship provides a "stronger signal" than company profile for determining "the stylistic affinities between plays belonging to the same period of
composition" (181).
I will return to these conclusions, but I begin with the concession incorporated into the close of the chapter. While a house style is "not evident" in "the language of the plays themselves", Craig and Greatley-Hirsch acknowledge that it

> may well be found in performance - in the vocal, physical, and expressive qualities of different actors and types of acting, in the incorporation of dance, music, song, tumbling, "wit", and other feats, and so on. However, performative elements such as these are ephemeral and, as G. K. Hunter observes, "the evidence left in texts is much too sporadic for the point to be developed". (Craig and GreatleyHirsch 2017, 200)

Hunter's claim is quoted from the Renaissance drama volume of the Oxford History of English Literature, but the problem he describes is not limited to the past. Even in the case of current plays, the evidence for performative effects in dramatic texts is unreliable, not because there is too little but too much. Read as theatrical scripts, dramatic texts offer an abundance of different and even contradictory cues for performative effects, but "the language of the plays themselves" (a phrase we'll meet again) cannot determine which is the right cue to follow. In citing Hunter, then, Craig and Greatley-Hirsch identify the conviction underlying the question in my title: like all text-centered approaches, QA cannot be connected decisively with theatrical performance. Moreover, they suggest an answer to the question as well. If an eminent Shakespearean writing in an authoritative work proceeds comfortably within an approach that admittedly cannot deal with theatrical performance, then the inability, however regrettable, does not matter, at least not in a way that undermines the legitimacy of Shakespearean work. But this raises a new question - what, exactly, is Shakespearean work? Craig and Greatley-Hirsch proceed from various assumptions, all bearing more or less directly on this question. I look at some of these here, with the idea that they might lead to a differently nuanced answer to the question in my title.

Craig and Greatley-Hirsch's Shakespeare is an amphibious creature, resident in textual and theatrical domains represented as
fundamentally different from one another. Just as textual details cannot provide reliable evidence to interpret performative effects, so performative effects cannot be read back reliably into textual details. Once again, the problem is too much. Reverse engineering allows us to associate the theatrical business in a particular performance with a textual detail, but since other performances will produce different kinds of business in conjunction with the same detail, the association turns out to be coincidental rather than causal - a just-so story without explanatory authority. The distinction between textual and theatrical interpretation has for so long grounded our work that we have devised a rhyming mnemonic to summon it up - the page and the stage. But if this ground is familiar, is it solid? Do we know what we mean first by "interpretation" and then, more specifically, by the sub-categories of "textual" and "theatrical interpretation" we tend unthinkingly to slot into the divided and distinguished worlds awaiting their arrival? More particularly still, what does textual interpretation mean for Craig and Greatley-Hirsch when they shelter QA under the umbrella of Hunter's "evidence left in texts"?

Stage/page discussions in current practice typically take the form of a confrontation between mighty opposites, stage-versuspage, where expressions of interest in one are understood to question the legitimacy of the other. The reception accorded Lukas Erne's Shakespeare as Literary Dramatist, as Erne himself describes it in the preface to his second edition, is a striking example. Although Erne's claims for Shakespeare's literary ambitions were never meant to deny that he was "simultaneously a man of the theater", readers took the book as requiring them to choose: is Shakespeare "of the stage or of the page, should we watch him or read him?"; and advocates of theatrical Shakespeare vehemently opposed Erne's supposed antitheatricality. According to one reviewer, "all those who agree with" Erne "suffer from a post-9/11 trauma", and in another instance, the book was displayed at a performancecentered Shakespeare conference by someone "pantomiming machine-gunning it". These are "false dichotomies", Erne insists, but "the realization that they are false", he concedes, "does not mean we can easily escape them" (Erne 2013, 1-4).

Stage/page discussions had already taken the form of a fiercely
contested zero sum game as early as 1811, when Charles Lamb argued that performance impoverished the experience available to readers of Shakespeare's tragedies (Lamb 1903), and the disputatious tone extends back to Shakespeare's own day, where Jonson is only the most prominent example. While there have been periods when one side or the other effectively controlled the discussion, consensus was never universal and eventually displaced by a new consensus, itself temporary, based on the values of the other side. Given the sturdy durability of this controversy, Erne's "cannot 'easily escape' its 'false dichotomies'" sounds like understatement. If the "debate" between "text or performance" is "the only glue" that is "holding the diverse field of Shakespeare studies together" (Lee 1991, 410-12), escaping its dichotomies would be impossible.

In contrast to this overheated rhetoric, Craig and GreatleyHirsch come across as benevolent pluralists - we're doing text over here, you're doing performance over there, it's all good; but the pervasive longevity of the stage/page controversy raises the question how they have managed to ascend from the bellicose conditions on the ground. Maybe they haven't. Maybe partisan commitments are percolating under the insouciant tone of their concession. To begin with a small point, what are we to make of "and other feats, and so on", the phrase with which their catalog of theatrical effects trails off? It's an oddly redundant locution, like "etcetera, etcetera, and so forth" in The King and I; and although semantically inert (that's what redundancies are), it is rhetorically expressive in a way that invites some scrutiny. It suggests indifference (you can accumulate examples of this stuff endlessly), and in conjunction with the relegation of performative elements to 'ephemera', indifference verges on the dismissive (why bother?). This suggestion is substantially reinforced by "the language of the plays themselves", the phrase with which Craig and Greatley-Hirsch introduce their concession. Anyone summoning up "plays themselves" has ventured, intentionally or not, into critically fraught territory. Where advocates of theatrical Shakespeare affirm the priority of performance ("the history of the text", as Stephen Orgel puts it, is the "history of realizations of the text" [Orgel 2002, 246]), Craig and Greatley-Hirsch identify "the plays themselves" with their
language, thereby replacing the (indubitably unstable) performance with the (presumably stable) text as the ontologically appropriate object of critical attention. What begins as concession -text-centered approaches are legitimate even though they ignore performance - has morphed into assertion - text-centered approaches are legitimate because they ignore performance.

Craig and Greatley-Hirsch are not confrontational critics, and the table-thumping pronouncements I just teased out of their words do not correspond to the intentions they put into them. But intentions are not the sole determining factor, because intentions are themselves determined. As Gerald Graff argues, anything we "are able to say about a text" depends on a "relation to a critical community of readers, a 'discourse community' which over time has developed an agenda of problems, issues, and questions with respect both to specific authors and texts and to culture generally" (Graff 1992, 75). This dependency makes it impossible to examine the differences between text- and performance-centered approaches to Shakespeare (or any other topic) as an innocent bystander. The stage/page debate is not the "only glue" holding us together, but it's all around us, and no matter how diligently we endeavor to observe the matter at a remove, we are bound to be swept up into its controversial vortex.

If Craig and Greatley-Hirsch have no choice but to reflect on this topic from within the situation inherited from previous reflection, this does not mean that they - or we - are totally trapped by the mutually exclusive antitheses on which the controversy has been based. Consider the possibility that literary and theatrical Shakespeare share vital interests under their differences. If so, as I argue immediately below, while it may well be that performance effects are not determined by textual details, the situation is not necessarily different for literary effects. And if it isn't, if "the language of the plays themselves" does not determine the interpretation of literary effects any more than it does the interpretation of theatrical effects, then (looking ahead to Part 3) how should we define - at once identify and limit - the benefits we can expect from QA's distinct and very specific kind of textual approach?

\section*{Part 2. The Stage and the Page: Interpretation Over All}

It is a truth nearly universally acknowledged that while connections exist between text and performance, they remain suggestive rather than decisive. Even vocalization, the aspect of performance closest to "the language of the plays themselves", remains too far removed to claim a determining authority. To illustrate the point, consider the skit based on "To be, or not to be, that is the question" (Hamlet, III.i.57) \({ }^{1}\), performed as part of the RSC's commemoration of the four-hundredth anniversary of Shakespeare's death (https://www.tobysimkin.com/hamlet-skit). It begins with Paapa Essiedu, alone on the Royal Shakespeare Theatre stage, speaking the line as "To be, or not to be, that is the question"; but before he can continue, Tim Minchin bursts in from the wings ("Sorry, sorry") and changes the emphasis: "To be, or not to be" ("It's a choice, you see"). The rest of the skit repeats the process - a series of interruptions and revisions: Benedict Cumberbatch emphasizes "not", Harriet Walter the second "be", David Tennant "that", Rory Kinnear "is", Ian McKellen "the", and Judi Dench the second "to", until Prince Charles, coming up from the audience, delivers the line as "To be, or not to be, that is the question", upon which exeunt omnes, still arguing.

In representing an anxious struggle to find the right delivery, the skit dramatizes the extraordinary challenges that familiarity thrusts upon actors. Shakespeareans come to the soliloquy overloaded with expectations based on remembered experience, and even first-time audiences with no professional investment in the play register "To be, or not to be" as a cliché. As Douglas Bruster says, "[f]our hundred years of performance history [...] weigh on the most recent actors" (Bruster 2007, 101), driving them to sometimes desperate inventions as a way to focus spectators' attention on what's happening in front of them, undistracted by memories.

In the video, however, the impression that emerges is not desperation but light-hearted levity. In even the most aggressively contentious expressions generated by this putatively fraught

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1 All Shakespeare quotations are taken from Taylor et al. 2016.
}
competition (Kinnear's "No, no, no, no, no. Idiots!", say), the actors take obvious delight in playing off each other's performances. Minchin only pretends to be affronted by Essiedu's supposed suggestion that "there's some reason, some intrinsic reason, why audiences wouldn't accept me" as Hamlet. And the reverse colorblind casting with which he continues ("Say it, I'll never play Hamlet at Stratford upon bloody Avon because... I'm ginger") makes a mockery of the emphatically reiterated "reason, some intrinsic reason" behind his faux-pain. Intrinsic reasons don't carry much weight in the theater. Of course blacks can play Hamlet. If you're okay with a twenty-first-century English-speaking Hamlet, you've swallowed a camel, and when Paapa Essiedu plays the part, as he does in the RSC production current at the time of the skit, you won't strain at a gnat.

As with race, so with gender. Minchin mistakes Cumberbatch for Eddie Redmayne ("I loved you as the Danish girl"), and when he asks Judi Dench who she is, her response, "It is I, Hamlet the dame", claims a histrionic privilege beyond her real-life entitlement. Minchin pretends to deny this privilege to Harriet Walter, "You can't play Hamlet because you don't have...", but she puts him in a hammer lock and he revises through clenched teeth: "... a pianist!" Gender presents no more of an intrinsic obstacle than does race (female Hamlets go back to Sarah Siddons), and age doesn't matter either. The graveyard scene makes much of Hamlet's age, but whatever Hamlet's being thirty years old might have to do with the character's age elsewhere in the action, it has nothing to do with the year of the performer's birth. Sarah Bernhardt was fifty-five when she first took on the role, at a time when fifty-five was older than it is now. Betterton first played Hamlet in his mid-twenties and carried on in the role through to his seventies. Jonathan Croall catalogs similar examples (Garrick at sixty-nine, Alan Rickman at forty-six, Mark Rylance at twenty-eight and again at forty, etc.), concluding that the part "is open to all ages of actors, which is partly why so many people are able to play it" (Croall 2018) \({ }^{2}\).

\footnotetext{
2 With boys for female characters and blackface for Moors, Shakespeare's theater was notably indifferent to mimetic accuracy of this kind. Someone, conceivably Shakespeare himself, may have revised the text to make Hamlet older and more
}

Intrinsic reasons, or their absence, are crucial to the central business of the skit - getting the emphasis right in the first line of the soliloquy. The divergences matter: "that is the question" means something different from "that is the question", and both differ from "that is the question". But the words of the line cannot determine their own delivery, and any attempt to find an inflection that can secure a consensus more stable than whatever exists at the moment of its own performance is bound to issue in the anxiety described earlier. That the actors transform anxious disagreement into festive comedy is made possible by their shared indifference to getting it right. What matters, rather, to the spectators as well as to the actors, is the production of interpretive interest - "the first purpose of a writer", according to Dr Johnson, "exciting" a "restless and unquenchable curiosity" in anyone who "reads his work to read it through" (1986, 30). Shakespeare's past mastery in the realization of this purpose has frequently been appreciated, and so here: although the language of the line itself cannot tell us which of its words should be emphasized, each of the differently nuanced vocalizations has the capacity to generate interpretive desire - they all work \({ }^{3}\).

Johnson is thinking of a reader's engagement with a writer's text, not a spectator's with the performance of a play; but Johnson saw a similarity between these different situations ("A play read, affects the mind like a play acted" \([1986,26])\), and the effortlessness with which his comment about interpretive interest can be transferred from textual to theatrical experience provides another occasion for skepticism about the stark contrast with which the stage/page controversy has come down to us. If Craig and GreatleyHirsch's impartial separate-but-equal turns out to be separate-butunequal, perhaps the categories are not truly separate either. However different, textual and theatrical interpretation are both modes of interpretation, and their shared interpretive interest is, I

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corpulent (Bourus 2014); but if so, I doubt that it was to assuage anxieties about Burbage's performative plausibility.
3 Or almost all; Dench's second "to" is a stretch. "Perhaps Hamlet uses the 'to' form" because "'to' renders that action impersonal", thereby adding to the effect that makes the soliloquy "float above the rest of the play" (Bruster 2007, 51, 46), but "To be, or not to be" is a line few actors will want to deliver.
}
suggest, produced in both cases by the effects of an embodied vocality.

That the "felt experience of the voice" is of paramount importance to understanding the speech of dramatic characters is now regularly acknowledged. The "performative turn" in recent work has "shifted critical interest from the semantic to the vocalic qualities of speech" - those "material attributes of the voice", including "intonation, pitch, rhythm and accent", which are crucial in determining how intention is "decoded". Sonia Massai, whom I quote here, synthesizes and adds to the rich body of research currently focused on "the impact of marked voices on the production and reception of Shakespeare in performance" (Massai 2020,3 ). What I want to argue now is that a similar impact is equally (if not identically) decisive for the readers of Shakespeare's texts.

Textual interpretation begins with the understanding that we have a text to interpret. According to Steven Knapp and Walter Benn Michaels in "Against Theory", when we take the marks on a page as not just blotches produced by mechanical processes but signs or symbols, we are "ascribing these marks to some agent capable of intentions" (Knapp and Michaels 1982, 728). I am interested here in the specific terms with which this originating agent is described:

For a sentence [...] even to be recognizable as a sentence, we must already have posited a speaker and hence an intention. [...] [A]s soon as we attempt to interpret at all we are already committed to a characterization of the speaker as a speaker of language. We know, in other words, that the speaker intends to speak; otherwise we wouldn't be interpreting. (Knapp and Michaels 1982, 726)

Since "Against Theory" has from its first words been focused on the "interpretations of particular texts" (723), the "sentence" at the beginning of this passage must be taken to refer to a unit of inscription as originated by a writer. Almost immediately, however, we hear about "a speaker" and find ourselves interpreting not a writer's text but a speaker's utterance. What has happened to account for this change?

Nothing has happened, because no change is registered. We understand, without conscious reflection, that the speakers we hear
about in Knapp and Michaels are really writers, just as, without conscious reflection, readers of this sentence understand that they do not actually 'hear of' anything in the Knapp and Michaels passage, despite what I just said - or rather wrote - about it. These slippages, between the writing and reading of texts on the one hand and the utterance and hearing of speech on the other, occur with such unconscious and inconspicuous frequency that we might dismiss them as dead metaphors. According to Walter J. Ong's Orality and Literacy, this would not be a good idea.
> [I]n all the wonderful worlds that writing opens, the spoken word still resides and lives. Written texts all have to be related somehow, directly or indirectly, to the world of sound, the natural habitat of language, to yield their meanings. "Reading" a text means converting it to sound, aloud or in the imagination, syllable-by-syllable in slow reading or sketchily in the rapid reading common to high technology cultures. Writing can never dispense with orality. [...] Oral expression can exist and mostly has existed without any writing at all, writing never without orality. (Ong 2012, 8)

From Ong's perspective, the fact that we normally pay no attention to these ubiquitous locutions indicates not that they are inconsequential but that they are fundamental - always already there.

In claiming that "'Reading' a text means converting it to sound", Ong represents interpretation as an active vocalization, as though we willingly give voice to the text, if only in the mind's ear; but according to Angela Leighton in Hearing Things, although "we certainly hear something" in "silent reading", it "remains fluid, alterable, uncertain" (Leighton 2018, 5). Leighton is following a path marked out by Garrett Stewart, whose Reading Voices locates textual interpretation in a "zone of evocalization" - the "place, always, of a displacement, a disenfranchisement of voice, a silencing", where "what is called up is voice, but only under suspension" (Stewart 1990, 2). A similar fine tuning might be considered for Ong's claim that "the natural habitat of language" is "sound". This was evidently the case for Saint Augustine, to judge from his perplexed response to the silent reading he observes in Saint Ambrose (Confessions, Book 6, Chapter 3), and maybe even the
case as late as Shakespeare's time, when "listening" was the way "children and adults learn[ed] to read" (Richards 2019, 44). We have, though, become increasingly used to silent reading over the centuries, and if "use almost can change the stamp of nature" (Hamlet, III.iv.165), the "natural habitat of language" might be relocated from sound to text. But even today, the hearing and utterance of speech persists as the indispensable foundation on which we all acquire reading and writing skills; and if it remains true (however adjusted in the details) that writing is "dependent on a prior primary system, spoken language" (Ong 2012, 8), then readers depend no less than audiences on the suggestions if not the sounds of voice.

To be sure, it is one thing to hear the voices of actors in a crowded room, quite another to summon up evocalizations from our engagements with a text in a solitary space; and in conjunction with the kinesthetic effects unique to performance and the differences with which readers and audiences control the flow of the process, it makes sense to distinguish between literary and theatrical experience. But not, I have been arguing, to the exclusion of their shared interest in interpretation. Whether reading texts or attending performances, we are interested not so much in the words, as we see them on the page or hear them on the stage, as in the "intonation, pitch, rhythm and accent" which underlie their "evocalization" or delivery, as well as in any and all of the relevant circumstances from which we might infer the intentions behind the words ("I understand a fury in your words", as Desdemona says to the crazed Othello, "But not the words" [Othello, IV.ii.29-30]). Starting with the premise of "language as gesture" or "as symbolic action", readers and audiences alike work at identifying whatever the expressive energies of words and actions seem to gesture toward or to symbolize beyond "the language", or, for that matter, the performance features, "of the plays themselves" \({ }^{4}\).

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4 For "gesture", I rely on R. P. Blackmur, who takes the line from Othello as his defining example of a "situation in which language gains the force of gesture" (Blackmur 1952, 4); for "symbolic action", I rely on Kenneth Burke (1966). More generally, my approach to text and performance is fundamentally indebted to W. B. Worthen's work in the item listed among the references and in many subsequent studies.
}

\section*{Part 3. Beyond Authorship?}

If "performative elements" float "ephemerally" above texts, the stage/page logic structuring Craig and Greatley-Hirsch's argument represents literary effects as tethered to and stabilized by the "evidence left in texts". I have been arguing, rather, that literary effects are not governed by textual details and are in their own ways as ephemeral as theatrical effects. This should not come as a boldly transgressive claim. It's a familiar experience - rereading a text (in the same edition) and finding that it resonates on such an unexpected register that it seems misleading to refer to it as the same text we read a year (or a week) earlier. It is not just common sense that leads to this conclusion. Critics have for some time been highlighting such experiences in a way that makes them the subject of a theoretical understanding. The "beholder's share", "literature in the reader", "how to do things with words" - such formulas suggest that meaning is better described as constructed by interpreting subjects than as determined by textual objects. From this position, it makes little sense to distinguish between the interpretation of texts and the interpretation of performances, at least not in a way that describes one as a process stabilized by "the language of the plays themselves" while the other is not.

Instead of this untenable distinction between kinds of interpretation, suppose we put interpretation itself on one side of a line, the process I described earlier by which we make sense of both literary texts and theatrical performances, and on the other side the digital processing of textual data in QA practice. It is just this distinction that initiates the argument in Style, Computers, and Early Modern Drama. On the one hand, the "computer possesses some attributes" unavailable to readers. It can "retain in memory" and "retrieve at will" all "the information provided by the text" (or by multiple-text data sets - the entire corpus of 1581-94 "plays with well-attributed first companies", for example), and it can analyze this vastly expanded body of material with quantifiable precision. In both these attributes, the computer far exceeds the capacities of "actual readers", who have limited memories and "vary considerably" in "their engagement" over "the course of reading a text". But although the computer can "read more, and more evenly,
than any human reader", it is "completely lacking" in a singularly important attribute that "actual readers" possess - "the competence required to properly understand and interpret a literary work". From this situation, a clear distinction emerges: "perfect evenness, unlimited memory, entire lack of comprehension" on the QA side, imperfect memories, uneven attention, interpretive understanding on the side of human readers (Craig and Greatley-Hirsch 2017, 2\(3)\).

This looks more plausible than the text/performance distinction from which we started, but it has its own problems. Where text/performance exaggerated differences to fabricate a pseudodistinction, interpretation/quantification tilts in the opposite direction, underestimating the magnitude of the gap between its contrasting categories as a way to envisage mediating possibilities that may not exist. Consider "information", the term with which Craig and Greatley-Hirsch refer to the matter "provided by the text". In data processing, which "depends by definition on defining a language feature" and "then counting instances of that feature as if they were all the same" (21), it is clearly appropriate to characterize statistical findings as "information". But on the other side of the distinction, where words are treated not as data but as symbolic actions to be interpreted, "information" does not seem to fit. When Hamlet points to "this distracted globe" (I.v.96), he perhaps "cudgels his brains by putting his hands to his head" (Levin 1959, 18), or gestures to the space he shares with the Globe spectators or, more expansively, toward the terrestrial habitat he shares with all creatures; and although different readers in different circumstances and different audiences at different performances will register these suggestions more or less strongly and in some cases not at all, the availability of all of them produces a semantically overdetermined situation for which "information" is a misleading description.

My point is not that "information" has a lopsided applicability to the distinction at hand; this might represent nothing more than a one-off unfortunate choice of words. The question is whether any fortunate choice exists - whether there is or ever might be any term to refer symmetrically to the categories on both sides of the QAinterpretation divide. When Craig and Greatley-Hirsch tell us that
the "computer can read more, and more evenly, than any human reader", they position cognates of "reading" on either side of the distinction, suggesting that the action designated by this word can identify the common purpose linking two different processes. The suggestion, though, is hard to flesh out in detail. There is no problem in the latter part of the sentence, where "reading" is evidently used to signify interpretation (Ong's inverted commas in "'Reading' a text means converting it to sound" signal the same metaphorical usage). But how then does "reading more" in the earlier part of the sentence produce knowledge comparable to or even compatible with an enriched interpretive understanding? No doubt short term memory helps, as when Polonius's "Take this from this" might be accompanied by a gesture toward his own distracted globe (Hamlet, II.ii.155). But expand "reading more" to the point where digital assistance is required, and we quickly reach a point of diminishing and even negative returns. In Distant Horizons, Ted Underwood writes enthusiastically about the "models of century-spanning change" available only now that we have digitized immense bodies of text (Underwood 2019, 153), but Katherine Bode, while acknowledging that this longue-durée perspective is a new thing ("no reader can remember all the novels published in a single year, let alone a longer time frame" [Bode 2020, 117]), remains uncertain how it contributes to an understanding of the text at hand. According to Andrew Piper, the tallying up of function words in thousands of German novels published over more than a century helps to make sense of Kafka's The Castle (Piper 2018, 16-18), but the information (and "information" is the right word here) amassed in this mountain of data might well work the other way around, distracting human readers from registering those immediately relevant contextual details on which interpretive impact depends \({ }^{5}\). (Determining the incidence "for the 500 most frequent words" in Craig and GreatleyHirsch's repertory-company corpus might lead to the same result.) That the computer can "read evenly" is even more problematic.

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5 For more fully developed discussions of Piper, see Weatherby 2020, 896-97, and of both Underwood and Piper, see Pechter 2021. The treatment of function words below relies on Pechter 2018.
}

Taking every instance of a word as identical to every other secures the countability necessary for QA to proceed, but at an incalculable cost to the actions performed by the "actual readers". Eliminating modulation guarantees uniformity, but the QA agenda aspires, beyond uniformity, to avocality - the total elimination of voice. Uniformity is itself a kind of voice, its very affectlessness producing effects of one kind or another: malice (HAL in 2001: A Space Odyssey); dispassionate omniscience (God in Book 3 of Paradise Lost - some readers hear malice there as well); confident professionalism (the laconic nonchalance of Airline Captain Speech, presumably learned in Pilot School along with non-verbal skills, like counteracting wind shear). Silence, too, is a kind of voice, not to be confused with avocality. (Isabella at the end of Measure for Measure is a noteworthy example of expressive Shakespearean silence.) It is impossible to read a text - a Hopkins sonnet, a software user manual, any text - with absolute avocality. If we could, interpretive action - reading - would be aborted before it could begin.

To refer to data processing as "reading" is misleading in the same way as referring to the polyvalences of gestural language as "information", and this is not just a verbal problem. We cannot find the right words to identify the purposes shared between data processing and textual interpretation because these categories are not just different from but antithetical to one another, and significant purposes in common do not exist. As Johanna Drucker puts it, discussing Franco Moretti's "distant reading" in a piece whose title, "Why Distant Reading Isn't", encapsulates the argument I have been developing here:

> The distinction between mechanical and hermeneutic reading, between machine processing and cognitive engagement, between the automatic and the interpretive, between unmotivated and motivated encounters with texts, is essential. Processing is not reading. It is literal, automatic, and repetitive. Reading is ideational, hermeneutic, generative, and productive. Processing strives for accuracy, reading for leniency or transformation. (Drucker 2017, 630)

Given this 'essential difference', the "metaproblem for the digital humanities", as Alan Liu has called it - "how to analyze [...] data
in meaningfully interpretable ways", how to "get from numbers to meaning" (Liu 2013, 411) - would appear beyond resolution.

Craig and Greatley-Hirsch's repertory-company chapter, though nowhere mentioning Drucker or Liu, reads like a response precisely to the objections they raise. Instead of essential difference, Craig and Greatley-Hirsch see fundamental similarity: "Just as plays of uncertain authorship can be attributed to playwrights on the basis of their stylistic affinity, plays of uncertain auspices may then be compared with the stylistic profiles generated for each repertory to determine whether it is attributable to that playing company" (167). On the basis of this analogy, they proceed to deploy the same rigorously data-based methodology that detected authors as a way to identify the stylistic profiles of company repertories and other multifarious phenomena: "our aim is to build on the striking advances [...] in authorship attribution and apply similar methods to other aspects of literary history" (6) - to go, that is, Beyond Authorship.
"Style" is the key word here, representing the cognitive target on both sides of the analogy, but used to very different effects. For attribution scholars, endeavoring to identify authorial style, the "heart of computational stylistics remains frequencies of common words" (Craig and Kinney 2009, 12), sometimes called "stop words" or "function words": auxiliaries ("has"/"hath"), relative pronouns ("who"/"which"), interjections ("tush"/"push"), prepositions ("betwixt"/"between"), and the like. Where lexical words generate interest in "contingencies like topic and setting" (Craig and Greatley-Hirsch 2017, 17), function words are decontextualized markers serving structural purposes. They "evade the normal reading experience" (Vickers 2002, 90) and "slip under the radar" of theatrical audiences (Sharpe 2013, 644), escaping productive consciousness as well; the preferences of authors for "betwixt" to "between" have more to do with their involuntary nervous system than with any intention: "One's style is one's inability to do otherwise" (Craig and Kinney 2009, 10), "something we really would know how to alter" (Petersen 2010, 148).

Style remains central even as Craig and Greatley-Hirsch move beyond authorship - it's the first word in the title of their book and
their "key enabling concept" (Craig and Greatley-Hirsch 2017, 4); but where style in attribution scholarship is defined fundamentally by the incidence of function words generated subconsciously in a biologically determined process, style is elaborated now as "always a matter of relativities":

> Style is concerned with frequencies of linguistic items in a given context, and thus with contextual probabilities. To measure the style of a passage, the frequencies of its linguistic items of different levels must be compared with the corresponding features in another text or corpus which is regarded as a norm and which has a more or less definite relationship with this passage. (Enkvist 1964, as cited in Craig and Greatley-Hirsch 2017, 4)

In this situation, we cannot start counting linguistic features until we know which features to count, and the "norm" required to make this determination is not located in the features of the text but in the relation of that text to "another text or corpus" - in the context. (Where style in attribution scholarship decontextualizes symbolic gestures to turn them into data, for style to go beyond authorship now requires the recontextualization of data into symbolic gestures.) But even as contextualization answers one question, telling us which features to count, it raises another, which context to choose, and neither the text nor its relation to other texts can provide the answer to that. Craig and Greatley-Hirsch hint at the problem, remarking that QA's deployment beyond authorship is designed to "reveal" the "latent aspects of texts" resonating in "an unexpected contrast between the speaking styles of protagonists and antagonists" (6). But where exactly in the data can "an unexpected contrast" be identified? Unexpected contrasts are based on prior expectations, but expectations won't be found in the words "of the plays themselves" or in the performative effects of any theatrical production, but in the readers and spectators who engage them. As Craig and Greatley-Hirsch come to acknowledge, "it is up to the literary critic to 'know when to compare and when to analyze" from "among the plethora of possibilities" that might be "worthy of attention" (21-22, quoting T. S. Eliot). (This knowledge, they quickly add, is not determined by an unconstrained personal preference, but rather "guided by the accumulated understanding
of the discipline" [22] - presumably the various "discourse communities" which, according to Graff, at once constitute and fragment the disciplinary space.)

Two fundamentally different meanings for style compete in these examples. In attribution, "style" stands for what the quantitative processing of textually embedded data allows us to determine. Beyond authorship, however, "style" stands for what an interpretive engagement with symbolic gestures allows us to understand. With its ambivalent reference, "style" works, like "reading", to suggest that two different enterprises have enough in common to allow for a meaningful interchange between them. But even as the nominal connection between "authorial style" and the "distinctive style" of "repertory companies" (28) encourages Craig and Greatley-Hirsch to slip between the two, the fundamental difference makes any real connection implausible. The slippage allows them to claim that there is better evidence for authorial than for company style while ignoring the fact that this evidence is derived from methods designed precisely to identify authors, but only marginally relevant to the determination of company style. That QA fails to detect enough word-frequency evidence to show that company style exists does not mean that company style does not exist; if QA had succeeded, this would not mean that it does. Word frequency, along with other quantifiable features in "the language of the plays themselves", must be factors in determining company style, as must performative features - "acting", "dance", and "other feats, and so on"; but it's the activity of readers and audiences in shaping this agglomeration of features into meaning that determines company style. Company style is an interpretive construct.

A little beyond the passage quoted earlier, Johanna Drucker asks whether QA will ever "relieve us of the task of reading". She has argued that it won't but has a different point here: "Rather than answer yes or no, we should ask, Why would we want it to?" (Drucker 2017, 33). For our purposes: why push QA beyond the quantitatively defined category of authorship into areas of interpretive understanding where it is not designed to go? This over-ambitious enterprise is especially perplexing in the case of Craig and Greatley-Hirsch, who go out of their way to acknowledge the limitations of their method. It's not just that QA
exhibits a "wilful blindness to all but a fraction of the signals to which readers and spectators respond" (Craig and Greatley-Hirsch 2017, 8). If the problem were simply quantity, we could simply amass a bigger data base and develop more sophisticated algorithms to increase the number of "signals" they register and count. But when Craig and Greatley-Hirsch tell us that "literary style in the general sense" extends to effects "not susceptible to counting" (24), they have gone beyond the problem of inadequate numbers to confront the unbridgeable gap between numbers and meaning. And then, having in effect acknowledged the intransigence of "the metaproblem for the digital humanities", their beyond-authorship agenda attempts to resolve it nonetheless.

I am not arguing that QA should limit itself strictly to authorship. Attribution functions here as a kind of synecdoche for a variety of projects which similarly resist the temptation to take evidence outside their own quantitative domain. The resistance has itself been resisted, with complaints that attribution scholars "rarely seem to ask" questions such as "Why and how does it matter who wrote a play, or a group of plays?" (Kesson 2017), or make "little attempt" to "integrate" their work "with literary criticism" (Kirwan 2015, 11). But the "striking advances" attribution scholars have made - untangling numerous webs of collaborative authorship and assigning a proliferation of Renaissance playtexts, orphaned at birth, to authorial homes depend precisely on the austerity with which such larger questions are avoided.

Here are four non-attribution QA projects that exhibit a similarly productive austerity:
1) Rare words: Certain words appear in Shakespeare but then disappear. That these words appear to a statistically significant degree in a work of uncertain date and a work whose date has been established suggests that the undated work was written around the same time. QA's ability to identify and count these rare words now furnishes a reliable basis to fine-tune the chronology of the canon (Jackson 2015).
2) Hard words: Shakespeare's works include words whose meanings, as we know from Renaissance dictionaries, were obscure
at the time. Since these words have in many cases been clarified over the centuries, they do not have the same impact on us as on the early audiences. The Hard Word Annotator in the open-access Lexicons of Early Modern English site hosted at the University of Toronto, "identifies hard words present in a selection of plain text input by the user" (Lancashire and Tersigni 2018, 31), providing a basis from which to speculate about original theatrical experience.
3) Collaboration: In estimating that "as many as half" of Renaissance plays were collaborative ventures, G. E. Bentley acknowledged how much we didn't know (Bentley 1971, 199). Digital technology has vastly increased the evidence available to Bentley. With the Database of Early English Playbooks, the Lost Plays Database, and the Non-Shakespearean Drama Database, supplemented by the Wiggins/Richardson catalogue of early English drama, a print resource but dependent on digital technology for its achievement (Wiggins and Richardson 2011-18), we are in a position to revise Bentley's estimate and look in more detail about the kinds of collaboration involved.
4) Money: The material in Henslowe, available since Malone's day as a source of information about Renaissance plays and theatrical production, can now be digitized into mining-ready data, from which we might expect more reliable answers to questions such as: Did professional playing become an increasingly lucrative business during the time span covered by the Diary? Which kinds of plays produced the best returns, and for which companies? Did playgoing become regularized as an everyday option rather than a special occasion for a critical mass of spectators?
In all these cases, quantitative questions are given quantitative answers. The answers can serve as the basis for interpretive activity but are not in themselves taken to identify interpretive conclusions. It is when numbers are mistaken for meaning that problems arise. This is the gist of my argument earlier: since the data-based claims attributing authorship inhabit a cognitive domain separate from the interpretation-based claims identifying company style, any attempt to transfer conclusions from one to another - to suggest, for example, that authorship is a stronger presence than company style - is difficult to justify.

It may be an overstatement to claim that "[n]o issue in

Shakespeare studies is more important than determining what he wrote" (Vickers 2002, 3), but the importance of authorship to Shakespeareans is beyond dispute. There is no consensus about what we do with authorship once determined, or whether we should be doing anything with it at all; but much (probably most) Shakespearean commentary continues to be based on assumptions of authorship, and the indebtedness of this commentary to attribution scholarship is self-evident. The situation is similar for the examples of non-attribution QA scholarship sketched out above. Although "Context Stinks!" describes a respectable (even cutting-edge) position on the current scene (Felski 2015, 151-85), much (probably most) Shakespearean commentary still seeks to locate its subject in historical context; and while the conclusions reached through rare words etc. cannot tell us how to contextualize any Renaissance play, still less why we have to, they provide a rich body of information to nourish the work.

All this only adds to the perplexity in Drucker's question: given the extraordinary benefits QA practitioners can claim to bring to Shakespeare studies, why extend their claims into territory they cannot - and in some cases explicitly acknowledge that they cannot - legitimately occupy? Two remarks by Franco Moretti suggest an answer. In the first, dating from 2013, Moretti tells us that although "the rise of quantitative evidence" during "the last few years" has "happened before of course, without producing lasting effects, [...] this time it is probably going to be different, because this time we have digital databases and automated data retrieval"; and since "the width of the corpus and the speed of the search have increased beyond all expectations", we "can do things that previous generations could only dream of" (Moretti 2013, 212). Six years later, writing with Oleg Sobchuk, Moretti has to admit that his hopes for QA have been disappointed: "We turned to quantification because we wanted to see all those documents that the predominance of the canon had made invisible - and now that they are in front of our eyes, we have found a way not to see them!" (Moretti and Sobchuk 2019, 95).

What went wrong? The advances Moretti anticipated have all materialized - faster chips, bigger data bases, more bandwidth, and the rest. The fault is not in the technology, but in ourselves.

Technology is just a tool, to use productively - or not. Through the exercise of critical judgment, we can interpret data into meaningful conclusions, but data by themselves do not constitute meaningful conclusions. Computers can't interpret, computers can't think. Drucker's point was made decisively a half-century earlier, in Hubert Dreyfus's What Computers Can't Do. In attempting to substitute mechanical processing for a bodily situated ("motivated") critical interpretation, the quest for Artificial Intelligence (AI) is incoherent and bound to fail. If no one has refuted Dreyfus's argument, this has not put an end to the quest. AI projectors pick themselves up from one after another of the disappointments Dreyfus had predicted, dust themselves off, and start all over again. For reasons that Dreyfus patiently reiterates, reviewing more recent AI projects in subsequent editions of his book, it is not going to be different this time, or any other (Dreyfus 1972, 1979, 1992). (What Computers Still Can't Do: the resigned shrug suggested by the title of Dreyfus's final version acknowledges that his efforts to curtail a futile enterprise are themselves probably futile [Dreyfus 1992]. Try again. Fail again. Fail better.)

Craig and Greatley-Hirsch avoid banner-waving gestures, but in trying to take QA beyond authorship they are, willy-nilly, working to realize the AI dream. My darker purpose in arguing that QA cannot be taken beyond authorship is to suggest that AI is past the size of dreaming, but where smarter and more knowledgeable people have failed, I am not about to succeed. That's maybe as it should be. I suggested at the beginning that the over-ambitious pursuit of unrealistic goals is strategically unwise, but long-term strategic advantage is not the be-all and end-all of critical work. There is also hope. Faced with a choice between the constraints imposed by theoretical coherence and historical precedent on the one hand and the hopes for a boundlessly enhanced future on the other, some of us will opt for the latter. If so, we can return to the question in my title, duly modified by the meandering discussion that has brought us to this place, to find a different answer: Does it matter that QA cannot deal with interpretation? No, it doesn't, it doesn't matter at all.

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\title{
Christopher Marlowe and a Mashup of Stylometry and Theater History
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In the nineteenth century, editors of the works of Christopher Marlowe devoted a fair amount of attention to canon formation. Never in doubt were the plays printed with authorial attribution: Dido Queen of Carthage (Q1594), Edward II (Q1594), The Massacre at Paris (Q1594?), Doctor Faustus (Q1604), and The Jew of Malta (Q1633)¹. The two-part Tamburlaine the Great was confirmed as canonical by way of forgery: John Payne Collier triumphantly announced in 1831 that he had discovered an entry of payment of 5 shillings for "a prolog to Marloes tambelan" in the diary of Philip Henslowe (Collier 1831, 3:113), but Collier himself had fabricated

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1 Lust's Dominion, one issue of which was published in 1657 with a title-page attribution to "Christopher Marloe", was considered canonical as late as 1821 (Bakeless 1942, 2:275); in 1850, Rev. Alexander Dyce confirmed its status as apocryphal by repeating John Payne Collier's 1825 assertion that the play was "unquestionably not" Marlowe's (Dyce 1850, 1:lviii; Collier 1825, 2:311). For the removal of "The Maiden's Holiday" from Marlowe's canon, see Steggle 2018.
}
the entry \({ }^{2}\). Toward the end of the century, as the history of English drama became a field of study, various scholars looked for Marlowe's hand beyond the canon. Some found evidence in plays whose authorial integrity had been enshrined in 1623 by their publication in \(M r\). William Shakespeares comedies, histories, \(\mathcal{E}\) tragedies. Some found evidence additionally in anonymous plays such as Arden of Faversham and Edward III. However, the identification of passages outside the Marlovian canon had little effect on the field of theater history, which was being driven by the desire to make William Shakespeare the premier dramatist of England.

Marlowe's canon-builders were necessarily also his biographers. Drawing on material from Robert Greene (1588), Richard Baines (1593), Thomas Kyd (1593), Thomas Beard (1597), and Francis Meres (1598), they assembled a portrait of an unruly and iconoclastic figure. In the early decades of the twentieth century, researchers located documents that seemed to add a political narrative to what happened at the Widow Bull's in Deptford; as a result, the fatal quarrel became more about intelligence-gathering than play-making \({ }^{3}\). Theater historians, given a transgressive Marlowe, tended to set him and his plays apart from the commercial activities of companies, playhouses, and repertorybuilding except for the spawn of "Tamburlaine's weak sons" \({ }^{4}\). At the turn of the twentieth century, as F. G. Fleay (1890, 1891), W. W. Greg (1904-8), and E. K. Chambers (1923) were writing the history of the early modern English stage, A. W. Pollard and other New Bibliographers were winning the battle against textual disintegrators. Their collective work, though focused on Shakespeare, further stabilized Marlowe's canon for the next generation such that, by 1942 and the publication of The Tragicall

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2 Francis Kirkman attributed Tamburlaine to Marlowe in the 1671 edition of his catalogue of printed plays, but there was no evidence of attribution from Marlowe's time until Collier's forgery was received as fact.
3 The landmark publications were The Death of Christopher Marlowe (1925), by J. Leslie Hotson, who provided an accurate transcript of the coroner's inquest; and Christopher Marlowe in London (1934), by Mark Eccles, who provided details of the William Bradley affair.
4 The phrase "Tamburlaine's weak sons" and its implicit contempt is Peter Berek's (1982, 73). For a correction to that perception of Marlovian influence, see Rutter 2018.
}

History of Christopher Marlowe, John Bakeless could assert with confidence that Marlowe influenced Shakespeare's plays but was not himself a co-author (Bakeless 1942, 2:214). In recent decades, scholars have learned more about Marlowe's post-Cambridge life, but these documents have not provided information on his personal or professional contact with other men who were writing plays for adult companies in the London theatrical market.

The advent of the digital age has given scholars new tools and user-friendly datasets with which to analyze Marlowe's authorship, not only in the canonical works but also in plays traditionally attributed to his contemporaries (including Anonymous). As a student of early modern drama, I am interested in the methodology and published results of those who practice stylometry; as a theater historian, I am interested in the implications of their claims not only for the business of adult playing companies in the early 1590s but also for the professional career of Christopher Marlowe. Here, I explore the mashup of these scholarly fields in order to set the claims of computational stylistics alongside the operation of the theatrical marketplace in Marlowe's time as I understand it to have been. I begin by laying out some basics about where Marlowe was after he left Cambridge in the summer of 1587, what he had written by the time he turned up at Deptford on 30 May 1593, who else was writing for the commercial stage in these years, and which companies were buying their wares. I continue by considering Marlowe's participation in the everyday business of playwriting through the lens of three plays for which opinions about authorship have been in flux for centuries: Arden of Faversham, 1 Henry VI, and Edward III. I do not intend to assess the arguments of specialists in authorship attribution but rather to explore the pressure their claims put on my knowledge as a theater historian of Marlowe and the networks of theatrical commerce in England in the early 1590s.

Marlowe's London: 1587-1593

Marlowe came to London from Cambridge in late summer 1587. By September 1589 he lived in Norton Folgate, a liberty across Bishopsgate Street from two playhouses, the Theater and the

Curtain in St Leonard Shoreditch \({ }^{5}\). Scholars generally agree that he had by this time written All Ovids Elegies and that Tamburlaine the Great was already on stage at the Theater with the Admiral's Men, its second part perhaps in progress (\#784, \#789) \({ }^{6}\). If this claim is correct, Marlowe (or someone) had already made a choice of companies and venues in London. The alternative to the Admiral's Men was the Queen's Men, who are known to have spent most of their commercial time on tour in the provinces after their formation in 1583 but, when in London, to have played at one of the city's inns: the Bel Savage, the Bull, the Cross Keys, and the Bell. If the Queen's Men had acquired Tamburlaine, Marlowe would have been in the company occasionally of Thomas Achelley, Thomas Kyd, and Thomas Watson, who wrote plays for the Queen's company (Dekker 1607, Kv)7, as did Robert Greene, George Peele, Thomas Lodge, Richard Tarlton, and Robert Wilson (and, no doubt, others). To these professional contacts and acquaintances, it is reasonable to add George Chapman, Henry Chettle, Samuel Daniel, Michael Drayton, John Lyly, Anthony Munday, Thomas Nashe, Matthew Roydon, and (by 1589?) William Shakespeare \({ }^{8}\). Scholars guess that the appeal of the Admiral's Men was their tall and talented player, Edward Alleyn, but the company also offered regular London performances at the Theater and Curtain, operational since 1576 across Bishopsgate Street from Marlowe's neighborhood. Without

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5 I follow the practice of William Ingram (1992), who spells the name of the 1576 Shoreditch playhouse as "Theater".
6 Opinions differ on whether Lucans First Book was also a school exercise or a product of Marlowe's mature style (Stapleton 2015, 201-2). I use the numbers assigned by Wiggins and Richardson in British Drama 1533-1642: A Catalogue (2011-18) to identify plays.
7 Given the patronage of the Queen's Men, as well as the talent in players and dramatists at their disposal, why didn't Marlowe sell plays to them? Were their innyard venues a factor? Was touring? Could he have anticipated in 1587-88 their imminent decline?

8 I take Jackson's point in "One-Horse Races" seriously, hence the names here of other 'horses' in London during Marlowe's residency (Jackson 2017a). However, as Burrows and Craig make clear in "The Joker in the Pack", the pool of eligible horses depends on canon (size and attribution) and provenance (Burrows and Craig 2017). Taylor (2020) expands the eligibility to Thomas Watson on the basis of his prose and non-dramatic poetry; if this practice gains proponents, perhaps Matthew Roydon (also a member of Marlowe's circle) will be considered. I do not pretend here to provide a definitive list of the men who were writing for the stage in Marlowe's time.
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compelling evidentiary alternatives, most Marlowe scholars now assign the composition of Dido Queen of Carthage (\#820), Doctor Faustus (\#810), and The Jew of Malta (\#828) to 1588-89. The former was acquired by the Children of the Chapel Royal, the latter two presumably joined the Tamburlaine plays as property of the Admiral's Men \({ }^{9}\). In 1592 the Earl of Pembroke's Men acquired Edward II (\#927). This company played at court in the winter of 1592-93 and in London (its 1594 title page advertises its ownership by Pembroke's and performances "in the honourable citie of London"). The Rose playhouse was built on the Bankside in 1587, which was also the year Marlowe moved to London, but only The Massacre at Paris of his corpus made a debut there (on 30 January 1593 [\#947]). Philip Henslowe, a financier and owner of the Rose, kept a book of accounts - familiarly known as Henslowe's "diary" - of performances (1592-97) and business transactions (1597-1603) \({ }^{10}\). For the period of Marlowe's lifetime, these accounts record not only the maiden run of The Massacre at Paris but also the presence of a nowold Jew of Malta in the offerings of Lord Strange's Men (thirteen performances, 26 February 1592-1 February 1593).

The likelihood that Marlowe was living in London by August of 1587 comes from two lawsuits published by David Mateer in 2008. The fact that his location was Norton Folgate comes from records published by Mark Eccles in 1934. Eccles's records detail a confrontation on 18 September 1589 between Marlowe and William Bradley, the son of an innkeeper (Eccles 1934, 9-31, 57-68). Thomas Watson came to Marlowe's rescue and killed Bradley. Marlowe and Watson were taken to Newgate prison, from which Marlowe made bail on the first of October and Watson (who had claimed selfdefense) was released four months later. Mateer's documents cast indirect light on Marlowe's lifestyle in London but not his career; however, Eccles's documents link him not only to writers (Watson) but also to the Admiral's Men at the Theater because Bradley had previously been embroiled with John Alleyn, the brother of

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9 W. W. Greg assigned Doctor Faustus to 1592 (Greg 1950, 5-10, 61). On the performance options for Dido, see Price 2018. Scholars used to assign Dido to Marlowe's school years, but Wiggins and Richardson's argument for 1588 has gained traction (Lunney 2015, 14-16).
10 I use Foakes's 2002 edition of the diary; subsequent references are cited by HD.
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Edward Alleyn \({ }^{11}\). Constance B. Kuriyama finds Marlowe still in London in 1591 (address unspecified), based on language in a petitionary letter sent to Sir John Puckering in June 1593 by Thomas Kyd in which he claimed that certain of Marlowe's papers were shuffled into his when the two had been "wrytinge in one chamber twoe yeares synce" (Kuriyama 2002, xvi; also, 229 [BL Harleian MSS 6848, F. 154]). By the end of 1591, however, Marlowe was in Flushing, in the Low Countries, where he was arrested for coining in January 1592 and sent back to London. J. Alan Downie itemizes subsequent arrests: "in May 1592 for threatening behavior in Shoreditch [...] [and] in Canterbury on 15 September 1592 for an assault on William Corkyn" (27) \({ }^{12}\). When The Massacre at Paris joined the repertory of Lord Strange's Men at the Rose in January 1593, Marlowe was spending time at Scadbury, the estate of Sir Thomas Walsingham in Kent. In mid-May, while Pembroke's Men were touring with Edward II, Marlowe was called before the Privy Council. On May 30 he was "in a room at the house of one Eleanor Bull" with three companions, and an argument broke out over the bill ("le recknynge"); he was stabbed above his right eye and died (Kuriyama 2002, 224-25 [PRO C260/174, No. 127]).

This collation of biographical details and theatrical work reveals a period of time when Marlowe was in London and thus available to collaborate on dramatic scripts. The title page of Dido Queen of Carthage, which advertises "Written by Christopher Marlowe, and Thomas Nash. Gent.", is the only evidence in print that Marlowe did co-author a play, yet Nashe's hand has long been questioned (Lunney 2015, 16) \({ }^{13}\). Few title pages advertise the practice of

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11 The Mateer documents concern Marlowe's acquisition of a horse and tackle which he did not return and a loan he did not repay. Like his brother, John Alleyn was associated with the Admiral's Men at the Theater. Not mentioned above as identified in the Bradley documents is Hugo (or Hugh) Swift, a lawyer whose sister Anne married Watson (Kuriyama 2002, 87). The presence of John Alleyn in the Bradley encounter is a loose end. Eccles guessed that Bradley owed Alleyn money (Eccles 1934, 68), but how Marlowe is connected to that (if at all) has not been determined.
12 Kuriyama provides the date of May 9 for the Shoreditch arrest (Kuriyama 2002, xvii); she claims further that "Marlowe was out of London because of the plague [...] during September and at least part of October of 1593" (87).
\({ }^{13}\) Thomas Merriam (2000a) argues for the collaboration; Lunney and Craig (2020) find no evidence of it.
}
collaboration even though it was commonplace \({ }^{14}\). One that does is A Looking Glass for London and England (1594), which announces the writers, Thomas Lodge and Robert Greene. The title page of The Tragedie of Gorboduc in 1565 not only advertises the authors but claims further that "three actes were wrytten by Thomas Nortone, and the two laste by Thomas Sackuyle" (STC 18684). Had the revised manuscript of Sir Thomas More reached the print shop, its title page might have advertised as follows: "by Anthony Munday, perhaps with others, and revised with scenes or parts of scenes by Thomas Heywood, William Shakespeare, Thomas Dekker, Henry Chettle and a scribe". Henslowe's diary provides voluminous evidence of teamwork in payments from 1597-1603. Those records also provide a model for the work habits of a frequent collaborator in the person of Henry Chettle. In 1598 alone Chettle wrote three plays solo and eleven with others. Sometimes he partnered with a single dramatist; sometimes he partnered with more. Two entries for "Chance Medley" suggest that the play may have had as many as five authors \({ }^{15}\). On 19 August 1598, Henslowe recorded a partial payment of 85 shillings to Robert Wilson, Anthony Munday, and Thomas Dekker that further specified a distribution in which Wilson and Chettle received 30 shillings each and Wilson received 25 shillings. Five days later (24 August 1598), Henslowe paid Michael Drayton 35 shillings "in fulle payment" for the play (HD 97) \({ }^{16}\). Specific as this information is, it does not say what Chettle's assignments were for the composition of "Chance Medley". Scholars engaged in authorship studies likewise have not discovered a consistent pattern in the division of scripts by scenes, characters, or some other logic.

\section*{Marlowe's Collaborations}

The identification of Marlowe's hand in works outside his traditionally assigned canon is not new. Looking for Shakespeare in every anonymous play, scholars through the centuries have

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14 According to Lukas Erne, "[f]or the total forty-year period from 1584 to 1623, only 13 of the 111 plays attributed to a playwright or playwrights acknowledge multiple authorship" (Erne 2003, 44).
\({ }^{15}\) I use quotation marks to indicate lost plays and italics for extant ones.
16 Henslowe's usual total payment for scripts was 120 shillings.
}
found the next best thing: Kyd and/or Marlowe. An illustrative case is Arden of Faversham (\#846), registered at Stationers' Hall on 3 April 1592 and published in that year without title-page advertisements of authorship, company ownership, or venue. In 1926 E. H. C. Oliphant was convinced "of the presence of more than one hand in the play" (Oliphant 1926, 85). Ceding a share to Kyd, Oliphant considered the "superior passages" to carry "the authentic voice of Marlowe" (86). Even so, he acknowledged that parts of Arden were "quite beyond the reach of Kyd, as we know him - beyond, in fact, the reach of every dramatist of the time, save Marlowe and the young Shakespeare" (85-86) \({ }^{17}\). F. S. Boas in 1940 found passages with "a distinctively Marlovian stamp" in Arden (Boas 1940, 199), but Bakeless in 1942 could not persuade himself that Marlowe would "take any great interest in domestic tragedy and its necessarily homely dialogue" (Bakeless 1942, 2:290). Granting that "[t]he verse is often much like Marlowe's and much better than Kyd could write" (2:286), Bakeless settled for Marlovian influence: "there is something of him in the play" (2:289). Nonetheless, in recent authorship studies of Arden, Marlowe has remained a worthy contender, in part no doubt because he has the largest package of well-attributed, single-authored, and provenanceidentifiable plays of any dramatist from the 1590s other than Shakespeare \({ }^{18}\). Arthur Kinney, who set out specifically to test the co-authorship of Kyd and Marlowe, found evidence of neither (Kinney 2009); using different methods, Elliott and Greatley-Hirsch found from a Zeta test of "comparatively infrequent and rare words" that a segment of Arden including the murder of Arden has

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17 Oliphant toyed with the possibility that Marlowe might have created "those two amusing ruffians, Black Will and Shakebag" (Oliphant 1926, 89).
18 Craig considers "known provenance" to be a qualifying feature of plays used as data in computational stylistics in "The Three Parts of Henry VI" (Craig 2009, 58); Burrows and Craig add "well-attributed single-author" plays (Burrows and Craig 2017, 197). Will Sharpe implies that Marlowe came in second in tests published by Gary Taylor in 1987 and by MacDonald P. Jackson in 1993 (Sharpe 2013, 655). On the integrity of Marlowe's text-package, Burrows and Craig confess that their Zeta test was a "spectacular failure" in identifying Marlowe as the sole author of The Jew of Malta (Burrows and Craig 2017, 210). Jackson, raising the issue of textual contamination due to company ownership, looks at Pembroke's repertory and observes wryly that "[w]e would scarcely guess that the author of Edward II was Marlowe from the list of nine plays with which it uniquely shares nine or more tetragrams" (Jackson 2017b, 128).
}
signs of Marlowe's hand (Elliott and Greatley-Hirsch 2017, 172, 175). Recently, however, Gary Taylor has eliminated Marlowe, ascribing Arden to Thomas Watson and Shakespeare, though not exclusively (Taylor 2020).

In the same spring that Arden of Faversham was moving from the stage to the shops of men in the book trade, a play called "harey the \(\mathrm{vj}{ }^{\prime \prime}\) in Henslowe's diary made its debut at the Rose playhouse (3 March 1592) \({ }^{19}\). The identification of this offering as prequel to a pair of plays published as The First Part of the Contention betwixt the two famous Houses of Yorke and Lancaster \((\# 888,1594)\) and The True Tragedie of Richard Duke of Yorke \((\# 902,1595)\) and depicting events in the reign of King Henry VI has been solidified by recent studies that focus on the texts in Shakespeare's First Folio of the three parts of Henry VI. For a variety of reasons, these three plays - especially the Folio's "The first part of King Henry the Sixt" (\#919) - have long been challenged as single- and Shakespearean-authored plays, making the trilogy "the thorniest problem in attribution in the Shakespeare canon", according to Hugh Craig (2009, 40). The number and identity of collaborators, as well as their respective shares, remain unsettled. From the perspective of Marlowe, however, current studies on the authorship of the "First Part" complicate further the stories told by theater historians about the authorship and company ownership of "harey the vj" at the Rose on 3 March 1592. The initial scholarly achievement was to identify the diary item as "The first part of King Henry the Sixt". That honor belongs to Edmond Malone who, adding a transcription of "some curious Manuscripts relative to the stage" to his nearly-in-press edition of The Plays and Poems of William Shakspeare, tagged the entry of "harey the vj" in Henslowe's list as the Folio play but noted as well his confidence that it was not originally written by Shakespeare "but of another poet" (I, Part II, 291). His opinion was shared by his generation of Shakespeareans, and through the centuries the number of hands in 1 Henry VI expanded to include just about everyone who was writing plays in 1592: Greene, Kyd, Lodge, Marlowe, Nashe, and Peele. As the list of collaborators

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19 It received fifteen performances through 19 June and another two when Strange's Men returned to the Rose at Christmastide for a month (29 December 1592-1 February 1593 [HD 16]).
}
grew, Shakespeare's participation shrank; indeed, his role changed from author to reviser. In 1926 Allison Gaw argued that Shakespeare "strengthened the unity and coherence of the trilogy" in 1594 for the use of his new company, the Chamberlain's Men; he added further that in 1599, after completing the "Henry V" trilogy, Shakespeare returned "to the crudest of the earlier series [...] to make it more worthy of its place in the sequence" (Gaw 1926, 157). In 1995 Gary Taylor demoted Marlowe "as a serious candidate" for previously attributed parts of 1 Henry VI and promoted Nashe "as a more probable candidate than Shakespeare (or any other dramatist)" for Act I (Taylor 1995, 178, 176). Craig (speaking also for Kinney) confirms Shakespeare for the garden scene of choosing roses plus Talbot scenes with his son and promotes Marlowe for "the middle part of the strand of the play involving Joan of Arc" (Craig 2009, 68). Taylor and Loughnane agree that Marlowe was "one of the play's co-authors" (Taylor and Loughnane 2017, 515).

The location of "harey the \(v j\) " in the repertory of Lord Strange's Men in 1592 makes the issue of company ownership an irresistible topic of conjecture in authorship studies. Taylor asks the obvious question: "why did the company not perform any other Shakespeare plays that spring, or after?" And he answers it: "Either Strange's Men did not possess those other early Shakespeare plays because [...] they had not yet been written, or because [...] Shakespeare had been working for another company" (Taylor 1995, 183). That other company in 1592 was the Earl of Pembroke's Men. It is best known by scholars for its failure: on 28 September 1593, Henslowe, replying to Edward Alleyn's query in a letter about Pembroke's Men, wrote that they had left touring some five or six weeks before because they could not meet their expenses on the road and "weare fayne to pane the〈r> parell for ther carge" (HD 280). Against this narrative are facts that suggest a normal company. Pembroke's Men played at court twice during Christmastide in 1592-93 (26 December, 6 January). They traveled widely in 1593, playing at traditionally welcoming towns including Ipswich, Rye, Bath, Shrewsbury, Leicester, and York (MacLean 2003). Their venues included Caludon Castle in Coventry. They had a first-class repertory including Titus Andronicus (S. R. 6 February 1594, Q1594, \#928), The First Part of the Contention betwixt the two famous Houses of Yorke and Lancaster (S. R. 12 March 1594, Q1594,
\#888), The Taming of a Shrew (S. R. 2 May 1594, Q1594, \#955), Edward II (S. R. 6 July 1594, Q1594, \#927), and The True Tragedy of Richard Duke of York (O1595, \#902) \({ }^{20}\). Largely because Pembroke's seems to be the only alternative to Strange's Men in the marketplace of 1592\(93^{21}\), scholars have made the assignment of plays to its repertory something of a parlor game: Play-X, if not in Henslowe's diary, must have been with Pembroke's. Aiding such gamesmanship, Alfred Hart created a "Pembroke Group" based on verbal similarities he called "inter-play borrowings", which he considered evidence of bad quartos and consequently also membership in Pembroke's repertory (Hart 1942, 352). That logic - inter-play borrowings in bad quartos - persuaded MacDonald P. Jackson in 1965 to assign Edward III to Pembroke's Men on the strength of Shakespearean echoes in The Contention. Richard Proudfoot was thinking of Shakespeare too in his British Academy address in 1985 when he toyed with the assignment of Edward III to Pembroke's Men (Proudfoot 1986, 182). In current authorship studies, the identification of Marlowe as co-author of Edward III is moribund. It was always a stretch, if only because the play may well have been written after Marlowe died \({ }^{22}\). F. G. Fleay, the most vocal scholar

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20 Wiggins and Richardson (2011-18) rename The True Tragedie of Richard Duke of Yorke as Richard, Duke of York (\#902); Taylor and Loughnane follow suit (2017, 496). I use the old-fashioned title and abbreviate it as True Tragedy; for its earlier part, I use a conventional abbreviation of The Contention. A word on this pair of Pembroke texts: as Burrows and Craig explain, their tests on the octavo and folio versions of the third part of Henry VI come out much the same (Burrows and Craig 2017, 213). For theater historians, however, the fact that Pembroke's company owned the quarto of The Contention and octavo of True Tragedy makes these texts discrete repertorial items from the versions published in the First Folio.
21 There was a viable playing company known as the Earl of Sussex's Men in 159293, but it is discounted as an alternative because its repertory, when the company leased the Rose from 23 December 1593 to 6 February 1594, shows so little overlap with the known repertory of Strange's or Pembroke's. Sussex's Men did offer Titus Andronicus as "ne" [new?], sharing that play according to its title page also with Strange's Men (the Earl of Derby's Men as of 25 September 1593) and Pembroke's, as well as The Jew of Malta, which Strange's Men had performed in 1592-93.
22 Scholars who date Edward III post-1593 sometimes cite its inclusion of the line from Shakespeare's Sonnet 94 as evidence ("Lilies that fester smell far worse than weeds", line 14). Of course it is possible that Shakespeare borrowed from the play rather than the other way around.
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from the Victorian period who supported Marlovian authorship in 1886, has been discredited on so many fanciful claims that his endorsement carries no weight. The lone voice now to see Marlowe's hand in Edward III is Thomas Merriam. His argument that Edward III "was revised by Shakespeare from an original (military) play by Marlowe" - requires the conjuration of an Urplay (Merriam 2000b, 159) \({ }^{23}\). And yet, no hand other than Shakespeare's has gained traction \({ }^{24}\). Edward III remains a puzzle because the construction of its provenance leans heavily on decisions about who collaborated with whom for which company at which time.

\section*{Theater History Narratives}

I welcome further rehabilitation of Pembroke's Men. The narrative of their otherness, grounded in Henslowe's report of an aborted tour and sale of company stock (while Strange's Men ended their touring on the upswing as the Earl of Derby's Men), has been undergoing revision since the 1970s. A major contributor to that revision is the scholarship on provincial touring funded by a project known as the Records of Early English Drama (REED), which was founded in 1976 at the University of Toronto. Two topics are relevant to Pembroke's Men: the relationship of touring routes to a patron's territories and the commercial viability of touring \({ }^{25}\). During the same period of time that REED research was being

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23 Positing an Ur-play has long been a solution for scholars who cannot explain problems they see in an extant text (see Knutson 2014). There were, of course, scripts now lost for every play written, but it is tricky to make arguments about authorship based on their content and language.
24 There was a stage in the tests reported by Timothy Irish Watt that looked promising for Marlowe's hand in scenes III.i to IV.iii of Edward III, but further testing did not confirm that promise (Watt 2009, 132).
25 The value of research funded and directed by REED to theater history narratives cannot be overstated. It has, quite simply, changed the fact of provincial performance from a negative in company commerce to a positive. The signature beneficiary of REED research is The Queen's Men and Their Plays (1998), in which Scott McMillin and Sally-Beth MacLean erase the perceived mismatch of a company that had the best patron, hand-picked players from the top companies of the time, the premier clown in England, and a repertory of innovative drama, yet spent its time on the road rather than in a London playhouse. On Pembroke's Men and touring, see Somerset 1988 and Knutson 2001.
}
published, textual scholars were questioning the theory behind "bad quartos", a label that grew out of judgments about Shakespearean texts such as The Contention and True Tragedy. Because these versions were shorter than their counterparts in the Folio and seemed flawed, scholars at the turn of the twentieth century settled on the opinion that players in touring companies filled out a repertory with scripts they reconstructed from memory of plays they had already staged \({ }^{26}\). Practitioners of stylometry, by erasing further the stigma of memorial reconstruction from texts believed to have been touring versions, provide additional evidence that the repertory of Pembroke's Men was not a backwater of defective, secondhand, and orphaned plays with the one exception of the single-authored Edward \(I I^{27}\). Indeed, given the number of hands in The Contention and True Tragedy alone, the company becomes an incubator of theatrical creativity. Andrew Gurr adds to the narrative of Pembroke's Men further by assigning them a playing venue in London during the winter of 1592-93. He proposes that James Burbage had a vacancy at the Theater when Strange's Men took up residence at the Rose. That vacancy was filled with a lease to Pembroke's Men, who were "very likely led by the son of the Theatre's owner", that is, Richard Burbage (Gurr 1996, 269). Lawrence Manley and Sally-Beth MacLean augment Gurr's supposition. Pointing to testimony in a lawsuit concerning renovations at the Theater, they suggest that "James Burbage may have been undertaking his own improvements", not only upgrading to match Henslowe's investment in the Rose but also to accommodate the occupancy of Pembroke's Men (Manley and MacLean 2014, 62). By endorsing the addition of Edward III to

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26 For the intertwining of bad quartos and touring, see Werstine 1990.
27 In 1996 Laurie E. Maguire drove a stake in the heart of memorial reconstruction as a blanket explanation for textual differences across variant extant play texts. She put no texts in the category "Unquestionably Memorial Reconstruction" (324). Of the Pembroke texts she addressed, she claimed that The Taming of a Shrew (1594) fell in the category, "Strong Case [...] For Memorial Reconstruction" (324); she categorized Arden of Faversham, The Contention, and True Tragedy as "Not Memorial Reconstruction" (324-25). Practitioners of stylometry treat memorial construction as a formerly popular aspect of the study of textual history (Jackson 2017a, 57). For an overview of theories of textual corruption regarding The Contention, see Kirwan (2018, 134-36). For a provocative recent argument on players' memories and texts, see Menzer 2008.
}

Pembroke's repertory (Knutson 2017), I have myself meant to contribute to their rehabilitation.

Although tempting, the assignment of plays to companies on the basis of authorship is problematic. In asking where other Shakespearean plays were in 1592 if Lord Strange's Men did not have them, Taylor suggests that Shakespeare "had been working for another company" (Taylor 1995, 183, emphasis mine). Proudfoot, musing over the company home of Edward III, offers the "romantic hypothesis" that "Shakespeare wrote the play [...] for Pembroke's Men" (Proudfoot 1986, 182, emphasis mine). Thomas Kyd connected authorship and companies by way of patronage. In June 1593, in one of his petitionary letters to Sir John Puckering, Kyd distanced himself from Marlowe by saying that "his [Marlowe's] L[ordshi]p never knewe his service, but in writing for his plaiers" (Kuriyama 2002, 229 [BL Harleian MSS 6848, F. 154]) 28. Probably because Shakespeare was not only playwright and player for the Chamberlain's Men but also sharer, scholars often interpret expressions such as "working for another company" and "writing for his plaiers" to mean that the dramatist was in some sense 'with' a company. Would Marlowe then have been 'with' the Admiral's Men when he wrote the pair of Tamburlaine plays? Was he 'with' Pembroke's when they acquired Edward II? Or 'with' Strange's Men in January 1593 when they acquired The Massacre at Paris? Theater historians and Marlovians have not suggested the kind of withness in company relations that is suggested by the withness of Shakespeare due to his player-sharer connection to the Chamberlain's Men. If a similar withness now applies to Marlowe due to his recently reinforced collaborations on "harey the vj" and Pembroke's Contention (less clearly so for True Tragedy), then the integration of Marlowe into the workaday activities of commercial

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28 In an appeal to Sir Robert Sidney for help against a charge of counterfeiting, Marlowe claimed the good will not only of Lord Strange but also the Earl of Northumberland (Kuriyama 2002, 209-10 [PRO SP 84/44]). Kyd does not identify the lord; most scholars agree that it was Lord Strange (Manley and MacLean 2014, 162), but Arthur Freeman makes a case for Henry Radcliffe, fourth Earl of Sussex (Freeman 1967, 32-37).
}
playing companies is taken further than the scholarly community has been willing to go \({ }^{29}\).

I welcome also evidence that locates Marlowe in working relationships with men who supplied the adult commercial companies of the early 1590s. The Marlowe known to Victorian editors was a solitary figure. Stories about his life and death did not suggest to them extensive networks with other writers. Boas in 1931, writing about Marlowe in London, observed with a tinge of regret that there was "little positive evidence [...] of Marlowe's association with other prominent playwrights" (Boas 1931, 68). He knew about the slam in Groatsworth of Wit attributed to Robert Greene, and he believed that Henry Chettle (associated with the Groatsworth project) "did not wish to know" Marlowe (78). Boas did not think there was evidence that Marlowe had "worked together" with Thomas Nashe on Dido or George Chapman on Hero and Leander (68). He believed that "any dramatic collaboration" between Marlowe and Shakespeare had "to be inferred purely on internal evidence" (68). Boas knew about the chamber shared with Kyd but took Kyd's denial of Marlowe in the Puckering petitions as a denial also of their fellowship (78). Eccles set up a counternarrative about Marlowe in 1934 in commentary on the documents concerning the affray with William Bradley and the intervention of Thomas Watson, but Boas skipped the opportunity to write that narrative in 1940, leaving the impression that Watson and Marlowe were little more than "neighbors" (Boas 1940, 103).

Recent Marlovian scholars have paid more attention. David Riggs spins the connection with Watson toward intelligence networks and recusancy. Noting Watson's work for "the adult acting companies", he adds that Watson "kept this fact out of the public eye" \((2004,187)\). He characterizes the bond between Watson and Marlowe as an "interest in libertine and oppositional writing" (187). Emphasizing the adversarial aspects of Marlowe's connection with Robert Greene (222-23, 228-29), Riggs pairs Marlowe and Kyd based on the originality and influence of Tamburlaine and The Spanish Tragedy (225-26) rather than friendship or a working relationship. Regarding the other original and

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29 Bakeless believed that Marlowe and Shakespeare would not have collaborated because they wrote "for rival companies" (Bakeless 1942, 2:214, emphasis mine).
}
influential playwright in the early 1590s, Riggs says Marlowe and Shakespeare "must have been aware of one another" \((282)^{30}\). Kuriyama implies a genuine closeness between Watson and Marlowe, emphasizing the former as a mentor with valuable contacts. Noting that they "wrote plays for the same companies" (Kuriyama 2002, 88), she implies further that Marlowe stood to profit from Watson's broad networks with musicians and - through the Earl of Northumberland - with Matthew Roydon, George Peele, George Chapman, as well as Thomas Harriott and Walter Warner (88-92). Michael J. Hirrel assesses Watson's participation in and influence on the networks of drama and dramatists around 1590 by way of Dekker's A Knight's Coniuring (1607). He reads the ending in which the group of Marlowe, Greene, Peele, Nashe, and Chettle follow the group of Watson, Kyd, and Achelley as a tribute to Watson and his fellows as "English popular drama's original source" (Hirrel 2014, 202). Robert A. Logan challenges the tradition in scholarship of a rivalry between Marlowe and Shakespeare that is both "professional" and "contentious" (Logan 2007, 5) \({ }^{31}\). Characterizing that rivalry more as partnership, Logan envisions a "working milieu" in which Marlowe and Shakespeare saw "each other on something of a daily basis at the theater" and knew one another's plays in performance (4).

None of these suppositions put Marlowe in the room where bits and pieces of plays were being constructed. None address the selection of Marlowe to craft the murder of Arden and some (or all) of the Joan of Arc story line. According to Elliott and GreatleyHirsch, the "scholarship [by practitioners of stylometry] suggests that collaborating playwrights apportioned the labour by act, scene, main plot and subplot(s), and perhaps even by character" (Elliott and Greatley-Hirsch 2017, 151). That variety of options is compatible with the many hands in the manuscript of Sir Thomas More as well as the entries by Henslowe of payments for two, three,

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\({ }^{30}\) Bakeless repeated "a kind of rumor, not very well founded but persistent, that Marlowe and Shakespeare were friends" (Bakeless 1942, 2:213); he cited Tycho Mommsen as believing that the two were "unfriendly rivals" (n. 38).
\({ }^{31}\) Logan has in mind works including James Shapiro's Rival Playwrights: Marlowe, Jonson, Shakespeare (1991) and Jonathan Bate's The Genius of Shakespeare (1998).
}
four, or more collaborators on numerous playscripts \({ }^{32}\). In the day of E. K. Chambers, the dramatists in Henslowe's book of accounts who did this sort of piecework were disdained as "extremely out-at-elbows men of letters" (Chambers 1923, 2:162); their product, nearly all of which is now lost, was assumed to be inferior to the single-authored products of Marlowe and Shakespeare. If Marlowe is to be perceived as the occasional author of a scene, a subplot, or a character, he either sinks in reputation to the level of those out-atelbows men in Henslowe's diary or lifts them to his, elevating also the piecework dramas they wrote. This, for a student of repertorial commerce and lost plays, is a very positive development.

There are additional assumptions in narratives of theater history about Marlowe that coexist uncomfortably with data from stylometric tests. One concerns professional standing. At the turn of the twentieth century, Marlowe scholars witnessed the rising popularity of Shakespeare that was intensified by scholarly societies, competitions in the Public Record Office for biographical documents, and arguments among bibliographers. They had an advantage, though, because Marlowe preceded Shakespeare with solo compositions that were literary and commercial winners. Bakeless, considering the possibility of collaboration, granted that a "promising beginner from Stratford" was likely to have had "some kind of acquaintance with the most brilliantly successful playwright of the day" (Bakeless 1942, 2:213), but he could not accept that the two also had a working relationship. Current scholars of authorial attribution use the language of hierarchy to make distinctions among members in a team of dramatists. Gary Taylor, for example, labels Thomas Watson "the senior and dominant playwright" (Taylor 2020, 22) compared to Shakespeare in the composition of Arden of Faversham "between late 1588 and \(1590^{\prime \prime}(3)^{33}\). In the same article, Taylor distributes the labor of Titus Andronicus in 1589 between Shakespeare and George Peele; he

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32 The manuscript of Sir Thomas More is valuable evidence on the fact of collaboration but not as helpful on patterns of collaborative relationships. Scholars have not yet determined whether the teamwork of the initial collaborators was similar to that of the revisers.
\({ }^{33}\) Will Sharpe, watching with increasing skepticism in 2013 as the date of Arden of Faversham slips toward 1588, quips that it might be "one of the finest plays that a young Shakespeare, possibly, never wrote" (Sharpe 2013, 657).
}
attributes "most of" the play to Shakespeare, labeling Peele a "subservient collaborator" (6). This language - "senior and dominant", "subservient" - is a flashing red light for scholars who have historically been hyper-sensitive to arguments that undermine Marlowe's standing in regard to Shakespeare's. They know how such labels might be applied in arguments that Marlowe was a collaborator in Shakespeare's plays \({ }^{34}\). What they cannot know is Marlowe's own sense of authorship and fellowship. By the winter of 1591 Marlowe had already been senior and junior poet on five plays that continued in performance despite changes in patronage, company, and venue (unless Doctor Faustus belonged to 1592 as W. W. Greg believed [1950, 61]). What did he think, then, when he was approached by a team of dramatists to contribute the upstart Jack Cade to The Contention? Was he already planning to join others composing "harey the vj" by contributing to a tertiary story line in the war with the French? As he conceived Edward II that summer, perhaps with an eye toward the company of Pembroke's Men, would he - based on his experience with collaborators on the Wars of the Roses plays - consider acquiring collaborators? And did he then turn to the composition of The Massacre at Paris late in 1592 and work alone?

Another angle on a hierarchy among playwrights is evident in Bakeless's emphasis on Shakespeare's youth and provincial origin compared to the London in-crowd of Watson, Peele, Greene, and Marlowe with their university degrees and established record of professional achievements. But, as I have argued elsewhere (Knutson 2018), the way the results of some stylometric experiments are characterized in authorship studies elevate Shakespeare's contributions to plays in the three-part Henry VI and subordinate Marlowe's. For example, in 1 Henry VI (the only evidence surviving of "harey the vj"), Craig's tests give Shakespeare the heroic parts: "the Temple Garden and Talbot scenes" (Craig 2009, 53); Marlowe is given the character of Joan (67). Craig argues that the identification with Marlowe enriches the

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\({ }^{34}\) Marlowe scholars will not appreciate my unsubtle hint here of a John-the-Baptist syndrome, but that position is further under threat from the scholarship now trending on "young Shakespeare", which will likely challenge more of Marlowe's claims to priority and seniority.
}
dramatic moment: "Her alliance with fiends and witches, her scoffing rhetoric, her acting under disguise, are then those of a Marlovian villain" (67). But there is a point at which it is condescending to assess Marlowe's value to fellow dramatists in terms of his ability to imitate himself. When Shakespeare replicates his style in 3 Henry VI (as identified by Burrows-Craig tests), he is assigned "the most memorable [parts] in the play" (Burrows and Craig 2017, 217). Marlowe's parts, in comparison, are almost selfparody: "the opening scenes where, as in 1 Tamburlaine, groups of characters stand on either side of the stage and shout defiance at each other" as well as a less-than-rhapsodic version of the "'sweet fruition of an earthly crown'" (217). The issue here for Marlowe scholars, I suggest, is not the fact of Marlowe's collaboration but the perception of his contributions as derivative. Others - Shakespeare, especially - are presented as if engaged in professional development in 1592, but Marlowe is made to look like he was plagiarizing his own box office hits.

The likelihood that Marlowe worked with other playwrights on scenes or characters for plays with storylines still under development is a serious blow to his "technicolour biography" (the phrase is Mateer's [2008, 13]). That biography was built with phrases from men Marlowe knew: "daring God out of heaven" (Greene), "they that love not Tobacco \& Boies were fooles" (Baines), "never cold my Lp endure his name, or sight" (Kyd). Nineteenthcentury scholars used those opinions to create a Marlowe who anticipated Shakespeare yet was his antithesis. As documents were published about Marlowe's imprisonment at Newgate (Eccles) and companions at the Widow Bull's (Hotson), those writing Marlowe's history such as Boas were further convinced that he was "a propagandist, provocative, explosive force" (Boas 1931, 78). Despite an insistence on facts in the biographies of Downie and Kuriyama, the sensational Marlowe survives in the conspiracytheory novel, The Reckoning, by Charles Nicoll (1992). In a New Historicist biopic, David Riggs calls Marlowe a "landmark figure in the history of atheism" with a "lengthy criminal record" (Riggs 2004, 6). Having assured his readers that Marlowe "spent the better part of his adolescent and adult life at school and university, where
[...] he probably shared his bed with other boys and men" (77), Riggs puts him in bed with Baines (259) and Kyd (262).

Marlowe's story for me as a theater historian has not been that of a social or political maverick but of a playwright apart in significant ways from the routine business networks of adult professional companies in the London marketplace. He has appeared to have had no particular loyalty to a company, though perhaps to the player, Edward Alleyn. The companies that acquired his plays - the Admiral's Men, the Children of the Chapel Royal, Lord Strange's Men, the Earl of Pembroke's Men - provided them with a repertorial context in his lifetime. That context can be partially reconstructed from court documents, records from the book trade, and the playlists in the diary of Philip Henslowe for 1592-93, but no records survive from 1587 to confirm (for example) the assumed contemporaneity of Marlowe's two-part Tamburlaine and Thomas Kyd's Spanish Tragedy \({ }^{35}\). Scholars of early English drama know that it matters "who lives, who dies, who tells your story" \({ }^{36}\). Since the nineteenth century, Marlowe's professional biography has been written in the shadow of the one who lived. Recent arguments of authorship attribution put Marlowe in a story where he is more like his fellows, as flexible as they in writing solo or in teams. When evidence of his hand becomes more precisely identifiable by the methodology of stylometry, I will welcome a revised narrative that accounts also for Marlowe's signature originality.

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\({ }^{35}\) Henslowe's playlists show that Lord Strange's Men had The Jew of Malta in repertory at the Rose with The Spanish Tragedy but not Tamburlaine (HD 16-20).
36 "Who Lives, Who Dies, Who Tells Your Story", Hamilton: An American Musical, music, lyrics and book by Lin-Manuel Miranda, directed by Thomas Kail, Public Theater, New York, 20 January 2015.
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\section*{MISCELLANY}

\title{
Leader and Pack: On Two Scenes Concealed from View in Shakespeare's Julius Caesar *
}

\author{
Silvia Bigliazzi
}

\section*{1. Traditional, Reversed, and Alternative Models}

In sixteenth-century European Caesar plays, Antony's role and that of the people are often shadowed by the Caesar-Brutus pair, as if to increase the sense of an irreducible political and personal polarisation around two antagonists. From the Neo-Latin Iulius Caesar by Marc-Antoine Muret (1552) to Jacques Grévin's César (1558), to the anonymous Caesar's Revenge (c. 1592, but published in 1607), and Orlando Pescetti's Il Cesare (1594), we are presented with clear-cut binaries, even when political stances and reasons are not unequivocal (see, e.g., Lovascio 2014), and only rarely, as in the case

\footnotetext{
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}
of Muret, Brutus' position is problematised \({ }^{1}\). Antony is absent from Muret's deeply Senecan Iulius Caesar, where the Divus Iulius is cast as a new Hercules, finally ascending to Heaven in an apotheosis of celestial glory. He appears in Grévin's César, a play derived from Muret's, as an addition underlining the avenging theme. And yet, in the "Brief Discours" prefacing the play, Grévin boasts about another novelty: his treatment of the chorus, which, from being made up of Roman citizens ("Civium Romanorum" [Hagmaier 2006]) in Muret, becomes a troop of Caesar's soldiers ("La troupe des soldats de César"). As Grévin vividly comments, in times of political overthrows "le simple peuple n'avoit pas grande occasion de chanter" (Grévin 1922, 7): they simply have no political voice. Albeit present in Cassius' address to them after Caesar's murder ("Citoyens, voyez cy ceste dague sanglante, / C'est elle, Citoeyens, c'est elle qui se vante / Avoir faict son devoir [...] / [...] Allez donc, Citoyens, / Reprendre maintenant tous vos droicts anciens" [Grévin 1922, 46]), the Roman citizens are in no way a political subject. In their place, Antony addresses Caesar's soldiers and the only voices we hear are when two of them answer Antony's call:

\section*{M. Antoine}

J'invoque des Fureurs la plus grande fureur.
J'invoque le Chaos de l'éternelle horreur,
J'invoque l'Achéron, le Styx et le Cochyte,
Et si quelque aultre Dieu sous les enfers habite,
Juste vangeur des maux, je les invoque tous, Homicides cruels, pour se vanger de vous.
[...]
Et vous, braves soldats, voyez, voyez quel tort
On vous a faict, voyez, ceste robbe sanglante
C'est celle de César qu'ores je vous présente :

\footnotetext{
1 As Manfredi Piccolomini notices, "Despite Muret's monarchical inclinations, Brutus is in fact the main character of the play. His first speech, in which he expresses his doubts on what course of action he should take - whether to side with Caesar who saved his life or to join the conspiracy to kill Caesar because he abolished Roman freedom - contains whatever tragic element the play has to offer" (Piccolomini 1991, 102). See this volume for a fuller discussion of the Brutus myth within the European context from the Middle Ages to the Renaissance (Piccolomini 1991). On the early modern Caesar plays here mentioned, see also Ayres 1910.
}

> C'est celle de César magnanime Empereur, Vray guerrier entre tous, César qui d'un grand cueur S'acquit avecque vous l'entière jouissance Du monde : maintenant a perdu sa puissance, Et gist mort estendu, massacre pauvrement Par l'homicide Brute. (Grévin 1922, 47)

His invocation of the Furies and exhortation to revenge can only elicit one reaction: the soldiers obviously respond as expected, and the play closes on their taking arms against the conspirators. This is not a political act, but a military coup against the rise of a new regime.

Pescetti's Il Cesare has up to four choruses equally divided between the two factions: a chorus of citizens supporting the conspirators, as opposed to the chorus of Caesar's soldiers, who eventually take arms with Antony; a chorus of Roman matrons, who invoke Romulus and Venus to appease Mars and secure peace in Rome (end of Act I), and a chorus of women of Calpurnia's court in favour of the Caesarist party. And yet, all of them remain fixed collective characters and no oratorical negotiation of power features in the play, which closes on the report of Lepidus' possibly joining Antony with his troops, and the second nuntius' tragic view of world history as one of perpetual war, at the same time immanent in and transcending human politics ("questo mondo è una perpetua guerra" [Pescetti 1594, 149]). Interestingly, only the anonymous Caesar's Revenge and Shakespeare's Julius Caesar focus more extensively on the Roman civil war. But like the other Caesar plays, Caesar's Revenge too shuns a real engagement with the people. Interestingly, the public ceremony for Caesar's funeral is turned into a semi-private one attended by "Calphurnia, Octavian, Antony, Cicero, Dolabella, two Romaynes, [a Lord not listed in the stage direction], mourners" (The Tragedy of Caesar's Revenge 1607). At that point we know that Caesar's hearse is brought onstage, although it is unclear where it is positioned, and incongruously Octavian is not only present, but also delivers a speech soon after Antony, contributing to rousing cries of revenge from the attendants to the ceremony. Antony calls them "Brave Lords" (IV.i.1888) and Octavian "my Lords" (IV.i.1893), betraying a
significant revision of the historical sources where Antony's interlocutors are a medley of "rakehells", as Plutarch calls them (Plutarch 1909, 1:135), and a confused multitude (plethos), as Appian depicts them: "now the people was mirt with strangers, \& a libertyne was equal with a Citizen, \(\&\) the fashion of a seruant, like to the maisters: for \(y^{\bullet}\) Senate ercept, the rest was indifferent to the seruantes" (Appian 1578, 143). But in Caesar's Revenge politics clearly remains a matter for gentlemen, leaving "the fourth sort of men which doe not rule", as Thomas Smith called them, entirely out: "those which the olde Romans called capite censij proletarij or operae, day labourers, poore husbandmen, yea marcantes or retailers which haue no frée lande, copiholders, and all artificers, as Taylers, Shoomakers, Carpenters, Brickemakers, Bricklayers, Masons, \&c." (Smith 1583, 33). As in Smith, in this play the people "haue no voice nor authoritie [...], and no account is made of them, but onelie to be ruled, not to rule other" (33). Thus, Antony's speech needs neither the elaborate oratory nor the refined theatrical performance beautifully presented in the ancient narratives:

> Antony
> Doe see this friend of Rome, this Countryes Father, This Sonne of lasting fame and endless praise, And in a mortall trunk, immortal virtue Slaughtered, profan'd, and butcherd like a beast, By trayterous hands, and damned Parricides:
> [...]
> Here lyes the dead to whome you owe your liues:
> By you this slaughtered body bleedes again,
> Which oft for you hath hath bled in fearfull fight.
> Sweete woundes in which I see distressed Rome,
> From her pearced sides to power forth streames of bloud,
> Bee you witnesse of my sad Soule's grief:
> And of my teares which wounded heart doth bleede,
> Not such as vse from womanish eyes proceede.
> (The Tragedy of Caesar's Revenge 1607, IV.ii.1858-62, 1869-76)

Antony does not need to make much effort to convince the Lords, they are already on his side, and his speech evades complex forms of political mobilisation. For all its pathetic mention of blood and
butchery, this scene lacks the truly political dimension it has in the historical narratives, when Antony shows the swift political command of the leader. Like the other Caesar plays mentioned above, it lacks the presence of the people as a potentially political collective character.

It is no surprise that another episode foregrounded by both Plutarch and Appian about the relation between the mass and the leader, also famously mentioned by Cicero in his accusation of Antony in his second Philippic, likewise remains ignored: the Lupercalia. Interestingly, Shakespeare is the only playwright not only to make the funeral scene pivotal in the arousal of the people and the inception of the civil war right in the middle of the play, but also to sense the relevance of that previous episode involving the masses, and to valorise it at the outset. No other Caesar play, among the ones recalled above, dramatises or alludes to that episode. Antony's offer of the crown to Caesar in the anonymous Caesar's Revenge comes short of anything even faintly related to the political implications contained in the ancient narratives. It occurs at an apparently private meeting, miles away from the public occasion of the Lupercalia, at the sole presence of "Dolabella, Lords, and others":

\footnotetext{
ANTHONY
This noble mind and princely modesty,
Which in contempt of honours brightens shines,
Makes us to with the more for such a Prince,
Whose virtue not ambition won that praise,
Nor shall we think it loss of liberty.
Or Roman liberty any impeached,
For to subject us to his Princely rule,
Whose thoughts fair virtue and true honour guides:
Vouchsafe then to accept this golden crown,
A gift not equal to thy dignity.
Caesar
Content you Lordes for I will be no King, An odious name unto the Roman ear.
Caesar I am, and will be Caesar still,
No other title shall my Fortunes grace.
(Shakespeare 1998, III.iv.1494-507)
}

Much has been written on the role of the inconstant mob in Shakespeare's Julius Caesar and, more in general, in Shakespeare's Roman plays. What has not been fully explored, however, is how, compared to other plays on the same matter, Shakespeare's treatment of the ancient sources sets him apart from any other contemporary playwright in the construction of the people as a potentially political subject. Besides Antony's oration in the Forum, two scenes are especially interesting in this respect: the already mentioned Lupercalia, and the transitional moment occurring between Caesar's assassination and Brutus' arrival in the Forum.

Drakakis has recently raised the question whether we read Shakespeare's sources as he did (Drakakis 2018). But these two examples show him more at variance with his contemporaries than with us. All the historical narratives that Shakespeare could access were also potentially available in the Renaissance to anyone who wanted to write about Caesar. To mention the Latin editions only, Plutarch was first published in 1473, Appian in Candidus' translation in 1492 and in Gelen's in 1554, and editions of Suetonius and Cicero circulated widely since 1470 and 1488/1494 respectively \({ }^{2}\). And yet, the only playwright who problematised the role of the mob in that Roman crisis remains Shakespeare. Caesar's Revenge and Pescetti's Il Cesare, in particular, have often been listed among Shakespeare's possible other sources (Boecker 1913; Schanzer 1954; Pearson 1981). But if they ever were, they hardly influenced him in this respect, as in no way do they contain anything resembling a crowd as the ancient narratives do; nor do they dramatise the performative processes through which taking a stand and becoming political in ancient Rome entailed a continuous transformation of performative stances closely connected with resignifying processes behind the mobile symbolism of Roman power. My contention is that Shakespeare sensed that potential in the ancient sources in ways that contemporary writers did not. In particular, he not only enhanced Antony's role, but he also hinted

\footnotetext{
2 Plutarch was first published in Rome in 1473, followed by two more editions (Jenson's in Venice in 1478 and Guarino Veronese's translation in Brescia in 1488). Suetonius' 1470 edition was published in Rome by Conrad Sweynheym and Arnold Pannartz, and Cicero's Philippicae dates from 1488 or, at the latest, 1494. All these editions circulated widely.
}
at Caesar's own power over the masses and Brutus' lack of it in peculiar ways that become apparent once we look at the play through the lenses of Plutarch and Appian.

Taking up Volumnia's anti-essentialist interpretation of power in Coriolanus based on a network of mutable relations \({ }^{3}\), I argued elsewhere that the very inception of stasis, or faction, may be better understood in the case of the civic conflict following Caesar's death once we look more closely not only at the fluid relation between oratory, theatre, and ritual in the political arena of the funeral ceremony, but also at how their uses may affect the formation of political stances and new unexpected power relations (Bigliazzi 2019a). It is a fact that the conflict in Rome is between aristocrats (Rebhorn 2002), and that in the historical narratives the people are represented as instrumental in the power struggle. Both the ancient sources and Shakespeare's play show that the multitude can be politicised and depoliticised or pushed to different political sides as occasion requires. But one question that remains open is the actual relation between leader and masses. Compared to Plutarch and Suetonius, Appian is most interesting with regard to Antony's funeral oration, while Plutarch becomes especially relevant when we look at Caesar's relation to Antony, his supporters, and the people at the feast of Lupercal. Plutarch and Appian devote equal attention to the complex scenario of the conspirators' mobile relation with the people immediately after Caesar's murder - a part of the story which Shakespeare significantly excised with a strong impact on Brutus' arrival in the Forum and his address to the masses. Here I will concentrate on these last two scenes with a view to considering Shakespeare's construction of Brutus and Caesar in respect to the mob before Antony shows a superb control of it in III.ii - a question I will instead leave untouched.

According to René Girard, Caesar and Brutus are not opposite figures, as traditionally thought, and their rivalry should be viewed as the result of Brutus' desire to follow the example of Caesar's own leadership (Girard 2002). Girard's contention is that, in an

\footnotetext{
3 "For Coriolanus the world is seen in terms of the absolute and the determining essence; for Volumnia the absolute is displaced by a social network of relative interactions, one in which intervention not essence is determining" (Dollimore 2004, 219).
}
escalation of love and hatred, emulation brings about radical antagonism. Leaders, he claims, "want the same thing; they all copy each other; they all behave in the same way", and what follows in this play is "no conflict of differences, but a plague of undifferentiation" (Girard 2002, 110) from which the populace itself is not exempt. In this light, rather than being a superman, Caesar becomes the embodiment of the people's own murderous inclinations: a scapegoat confirming the repetition of the foundational murder on which societies, Girard argues, are built, iterating the original expulsion of the Tarquins at the cusp of a mimetic crisis. Whether we glimpse in this position an antihumanist post-Holocaust attitude, indebted to Elias Canetti's Crowds and Power (Canetti 1978), as Richard Wilson does, or not, the question remains whether the inversion of the traditional relation between leader and pack is the only alternative we can imagine. A comparison between Julius Caesar and the ancient sources suggests that the question may be even more complex, and that a nuanced, if contradictory, mobile reciprocal bond is what defines the political struggle between competitors, so that its lack can be the sign of a flawed leadership. Antony will not fail in the Forum precisely because he knows how to control the people, being aware of what they want from him; as Raffaello Piccoli noticed in 1925, he can do so "because he has first submitted to [the mob]" (Bigliazzi 2019b, 335). Caesar does not fail with them either, but Brutus will, and this becomes apparent in III.ii when he allows Antony to eclipse his own political performance by binding himself to the pack and in turn binding them to the memory of the murdered leader.

In the following pages I will consider Shakespeare's approach to Plutarch's ambiguous narrative of Caesar's double policy with his 'friends' and with the people in the scene of the Lupercalia by focusing on a single detail contained in Casca's narrative. I will then look at how Shakespeare coped with Brutus' complex relation with the people after the assassination in ways that suggest strategic erasure. My contention is that in either case Shakespeare's choice was not neutral and was deeply connected with a subtle reflection upon the mutual relation between leader and mass in power games.

\section*{2. "[He] offered them his throat to cut": Offstage Ambiguities}

Contrary to the widely shared opinion that the people in Shakespeare's Rome are fickle, Richard Halpern has intriguingly remarked that they are not as manipulable and mobile as they are often thought to be. Rather, they "display not 'fickleness' but a kind of materialism of the present", which, compared to the patricians' attachment to ethical abstractions, endows them with "a less mediated and indirect, more materially visible attachment to their own class interest" (Halpern 2002, 222). If they first applauded Pompey and now Caesar, Halpern contends, it is because after all, with Pompey dead, "Caesar serves the same function" in being "a source of national pride, material prosperity, and spectacular entertainment" (222). Little surprise, therefore, that when Antony appeals to their economic profit they do change their minds for their own benefit. After all, in the first exchange between the cobbler and the tribunes in I.i, the cobbler's reply "with a joke about his business interests" shows him to be "more at home in the 'civil society' of economic concerns than it is in vying for control of the Roman state" (225).

And yet, the crowd does change fairly quickly at that point, and if the materiality of the present is one side of the coin, the other side shows them prone to call Brutus a new Caesar for no immediate material interest. If we go back to that first scene where they are accused of ingratitude and forgetfulness, we find them willing to share in the sense of the festive brought along by Caesar's victory by celebrating the winner for the winner's sake. As Marullus remarks, Caesar brings neither conquests nor tributaries, but his triumph entails a sense of potency in which everybody shares by rejoicing in it. The first scene unveils precisely this subtle emotional connection between leader and crowd that will famously become central in Antony's funeral oration.

The historical narratives of Caesar's murder and the ensuing civil war beautifully encode the political processes of engagement of the people through manipulative oratorical strategies, blending various forms of ritual in view of their proximity to theatre. Shakespeare enhanced this complex blending by conflating in I.i Caesar's military and political triumph and the fertility rite of the

Lupercalia in the light of Caesar's own desire of fertility to secure a political heir. Perhaps it is not coincidental that the play eventually ends with Octavius' announcement of Brutus' funeral rite - the opposite of the propagation of Caesar's gens prefigured at the outset, but contiguous to it in terms of the preservation of the fame of Rome's noble son within civic memory.

This symmetrical frame encasing a series of other rituals at the centre of the play - from the blood ritual in III.i to the funeral ceremony in III.ii - calls attention to the inception of rituality as a political form in Rome. All the rituals preceding that ceremony resort to strategies of representation: Casca is clear about the theatrics organised to impress the people at the Lupercalia - a "mere foolery" (Shakespeare 1998, I.ii.235), he calls it, underlining more the sense of a political farce than that of a carnival show, as sometimes claimed \({ }^{4}\). This is a question that Appian does not mention, and Plutarch only indirectly suggests, saying that Caesar made "as though he refused" the diadem, "turn[ing] away his head" at its offer (Plutarch 1909, 2:19), and that only "a few appointed for the purpose" (Plutarch 1909, 1:93) gave a cry of joy Caesar and Antony had evidently gathered a claque. In Appian's narrative, Brutus and Cassius will do the same shortly after the assassination. As part of this stage business, Casca also interprets Caesar's offer of his throat after his last refusal (Shakespeare 1998, I.ii.263-65), an episode that Shakespeare could find at this point of the narrative in The Life of Marcus Antonius (Plutarch 1909, 2:19), but not in The Life of Julius Caesar, where it precedes the Lupercalia and follows his rejection of the honours offered to him in the Forum by the consuls and praetors (Plutarch 1909, 1:91). Liebler has connected this episode, in Shakespeare's play, with Brutus' later offer of slaying himself during his own speech to the crowd, should that become necessary for Rome, as proof of the two leaders' common understanding of "the popular appeal of a displayed willingness to serve as pharmakos" (Liebler 1995, 95). But, as she further notices, "Caesar understands better than Brutus the pure

\footnotetext{
\({ }^{4}\) A few lines later he calls them "players in the theatre" (Shakespeare 1998, I.ii.259). For a carnivalesque reading of the opening scene of Julius Caesar, see Wilson 2002.
}
theatricality of such a gesture, and knows also how to work the crowd to 'clap and hiss him, according as he pleased and displeased them, as they used to do the players in the theater'". In other words, Caesar's "sacrificial gesture may be insincere, but it is nonetheless crucially important as a gesture" (95). And yet, if we go back to Plutarch and his Life of Julius Caesar, we find no clear hint of scapegoating implications.

In Plutarch Caesar's gesture is most ambiguous. Luciano Canfora, for instance, has interpreted it as a message of accusation directed to Antony for putting him in danger through his offer of the crown \({ }^{5}\). Indeed, earlier on in the same Life of Marcus Antonius, we are given an inkling of possibly traitorous behaviour on the part of Antony as well as of his unintentional responsibility in provoking enmity against Caesar during the Lupercalia:

For it is reported that Caesar answered one that did accuse Antonius and Dolabella unto him for some matter of conspiracy: "Tush", said he, "they be not those fat fellows and fine combed men that I fear, but I mistrust rather these pale and lean men", meaning by Brutus and Cassius, who afterwards conspired his death, and slew him. Antonius unwares afterwards gave Caesar's enemies just occasion and colour to do as they did: as you shall hear. (Plutarch 1909, 2:18)

But Caesar's gesture might also be evidence of his furious disappointment with the crowd's rejoicing for his refusal of the crown. Shakespeare's Casca seems to grasp this sense, suggesting a direct connection between the people's joy, Caesar baring his neck and offering his throat as in a challenge, soon followed by his falling down. As can be read in The Life of Marcus Antonius, "Caesar in a rage rose out of his seat, and plucking down the collar of his gown from his neck, he shewed it naked, bidding any man strike off his head that would" (Plutarch 1909, 2:19). The "rage" of Plutarch's Caesar is radicalised by Shakespeare into a fit, a detail which does not occur in any of the other historical sources, except that in The Life of Caesar Plutarch reports another peculiar detail:

\footnotetext{
5 "By this bitter, dramatic gesture Caesar can only have been making plain in public the risk attached to any such initiative. At the same time he was saying that anyone who attempted to push him towards monarchic rule wanted his death" (Canfora 2007, 283; see also 281-86).
}
[...] to excuse this folly [his failing to rise when he received the praetors and consuls on the rostra], he imputed it to his disease, saying, that their wits are not perfect which have his disease of the falling evil, when standing of their feet they speak to the common people, but are soon troubled with a trembling of their body, and a sudden dimness and giddiness. (Plutarch 1909, 1:91)

This passage becomes interesting when compared to the other episode mentioned in the Life of Marcus Antonius. The context is not the Lupercalia, but slightly before then, when in the Forum Caesar is presented with honours by the praetors and he offends both them and the people by not paying homage to the magistrates at their entry and declining their offer:

> When they had decreed divers honours for him in the Senate, the Consuls and Praetors accompanied with the whole assembly of the Senate went unto him in the market place, where he was set by the pulpit for orations, to tell him what honours they had decreed for him in his absence. But he, sitting still in his majesty, disdaining to rise up unto them when they came in, as if they had been private men, answered them: that his honours had more need to be cut off than enlarged. This did not only offend the Senate, but the common people also, to see that he should so lightly esteem of the Magistrates of the commonwealth: insomuch as every man that might lawfully go his way departed thence very sorrowfully. (Plutarch 1909, 1:91)

The relevant bit is at the end of this passage, when he finally rises and gets ready to depart. At that point, "tearing open his doublet collar, making his neck bare, he cried out aloud to his friends [ \(\varphi\) í \({ }^{\prime}\) ot], that his throat was ready to offer to any man that would come and cut it" (Plutarch 1909, 1:91). He then justifies his behaviour with the Senate by adducing his illness, "saying, that their wits are not perfect which have his disease of the falling evil, when standing of their feet they speak to the common people, but are soon troubled with a trembling of their body, and a sudden dimness and giddiness". But of course this was untrue, Plutarch remarks, because "he would have risen up to the Senate, but Cornelius Balbus one of his friends (but rather a flatterer) would
not let him, saying: 'What, do you not remember that you are Caesar, and will you not let them reverence you, and do their duties?'" (1:91-92). This possibly unfriendly advice had evidently endangered him, precisely as Antony's offer at the Lupercalia "had 'sealed the fate' of Caesar" \({ }^{6}\). In this passage, we sense this man's sudden awareness either of the traitorous presence of friends or of their political naivety, but we also perceive his irascible egotism: he suddenly realises his mistake in following that advice, and insults both the senators and the people (demos). Then in a rage he offers his throat to his friends denouncing their intent to have him killed - after all they were putting his life at risk by paving the way to his kingship publicly. The excuse of his disease sounds more like a lastminute attempt to downplay their role even in the mistake he had made, and refer all decision, including that error, to himself alone. Shakespeare can hardly have failed to perceive the complex psychological and political dimension of this episode.

But the relevant question here is that, in conflating those two stories, Shakespeare focused on Caesar's relation to the people, as in The Life of Marcus Antonius, rather than to his friends. Caesar's excuse for his infirmity as recounted by Casca, derived from the other episode in The Life of Caesar, elicits the crowd's forgiveness:

> When he came to himself again, he said, if he had done or said anything amiss, he desired their worships to think it was his infirmity. Three or four wenches where I stood, cried 'Alas, good soul', and forgave him with all their hearts. But there's no heed to be taken of them: if Caesar had stabbed their mothers, they would have done no less. (Shakespeare 1998, I.ii.267-74)

It is no surprise that Caesar might worry about his behaviour when he loses self-control, and then apologises for any wrongs he might have committed - this is a perfectly political gesture showing his understanding of the need to exchange place with the mass in the

\footnotetext{
6 "Cicero maintained then that, by his actions at the Lupercalia of 15 February 44, Antony 'had sealed the fate' of Caesar. This no doubt means that his actions brought the conspiracy forward, and clearly he does not exclude the possibility that Antony acted deliberately. However, this statement also contains an item of information (we do not know how truthful): that the conspiracy entered its operative phase as from 15 February. By these words Cicero reveals his familiarity with the hidden background to the plot" (Canfora 2007, 284).
}
hierarchy of power and temporarily submit to them. It is more surprising, instead, that Casca reports that "[t]hree or four wenches" indeed "forgave him", implying that in fact he had committed some wrong he needed to be pardoned for: perhaps his offering his throat as in a challenge? Offering himself as a pharmakos would not have required forgiveness, nor his falling down, as this would be a sign of suffering demanding pity rather than clemency. Caesar needs the people's support and this first narrative unveils how it may be gained and lost on the spur of the moment, arousing a sense of mutual dependency between leader and crowd as well as the mutability of their positions. Caesar's sudden anger is followed by his prompt attempt to resume self-control. The "common herd" (I.ii.263) show political constancy in assuming a solid pro-republican position when Antony offers him the crown; but then they are easily moved by Caesar's show of weakness, and what may be taken as an offence foregrounding tension is soon forgotten and superseded by a sense of compassion for the hurt leader. The public and the private are commingled, abstract concepts are replaced by emotional responses. And yet, Casca's comment on the wenches' total submission to him, whom they would have pardoned even if he "had stabbed their mothers", foregrounds a level of fanaticism for the leader that at this stage, in Casca's view, makes Caesar's playing games with them irrelevant.

Thus, although located in the context of the celebration of a ritual of fertility traditionally involving the sacrifice of a goat, Caesar's gesture seems hardly connected with scapegoating for the cleansing of a community. Reading Caesar's gesture as an allusion to himself as a sacrificial goat means overlooking the pragmatics of Caesar's political approach to the crowd in both the historical narratives and in Shakespeare's play. This does not mean jettisoning ideas of rituality inscribed in the politics of Rome \({ }^{7}\), which are unquestionably immanent to the play. It means instead to suggest a more nuanced dialectic between leader and crowd, where neither of the two is entirely predominant, and the leader's

\footnotetext{
7 Which Liebler also refers to to establish connections between the sacrifice of the goat, as described in Plutarch's Life of Romulus, Caesar's offer of his throat and Brutus' blood ritual (Liebler 1995, 137). On rituality, see also Girard 2002.
}
knowledge of the crowd's psychology makes him prepared to exchange roles or tip the scales of power. The episode discussed above shows that neither Caesar and Antony nor the crowd are the winners in the political theatrics of Lupercalia, and that the achievement of power in the dispute between the two oligarchic sides in Rome depends on the highly mobile demos, which both separates and connects them as a very flexible, albeit amorphous, third party.

A radical change in the mutual relation between politics and ritual is marked only at a later stage by Brutus' blood ritual after the assassination, an episode not present in any source and that carries out symbolically the sacrificial sublimation of the murder Brutus presents in his speech to the conspirators as early as II.i. 165 ("Let us be sacrificers, but not butchers"). It is from that point onward, until the end of Antony's oration, that politics and ritual start drastically to converge in the name of bloodshed and a regression towards tribal forms of communality. Antony will take advantage of these when the time comes to inflame the people.

\section*{3. Brutus and the Crowd: Offstage Erasures}

After the blood ritual, Brutus and his confederates go from the Capitol straight to the Forum where Brutus and Cassius separate and Brutus ascends to the pulpit to deliver his speech. In the sources their movements are much more complex. Shakespeare may have found a reference to the Forum in Plutarch's The Life of Caesar, where North's translation wrongly mentions the marketplace, following Amyot's "la place" (Plutarch 1911, 175), where the Greek clearly says that they went to the Capitol instead:

Brutus and his confederates, on the other side, being yet hot with the murder they had committed, having their swords drawn in their hands, came all in a troop together out of the Senate, and went into the market-
 men that made countenance to fly, but otherwise boldly holding up their heads like men of courage, and called to the people to defend their
> liberty, and stayed to speak with every great personage whom they met in their way. (Plutarch 1909, 1:103) \({ }^{8}\)

This mistake is rectified in The Life of Marcus Brutus, where Plutarch draws a more detailed map of Brutus' and his confederates' progress through Rome after the tyrannicide: from Pompey's Theatre, where it takes place in the propylaea at the front - the socalled Curia Pompeii - which was contiguous to the venue of games and spectacles and hosted the Senate's meetings, to the Capitol, then to the market-place, and finally back to the Capitol. This route is interesting for its symbolic connotations suggesting the mobility of power centres in the cityscape (from the Senate and Capitol to the Forum). After the murder, the conspirators take shelter in the Capitol, speak to the people and these invite them to go down into the Forum. Called on to descend from the Capitol, Brutus goes all the way down to the rostrum and delivers a second oration in defence of tyrannicide for the sake of Rome's liberty. But for all his assumed good reasons, the people do not show their discontent at the murder only out of respect of him. It is his ethos that keeps the mob calm, not his logos. Then, the praetor Lucius Cornelius Cinna speaks against Caesar, and an uproar follows, forcing Brutus and his friends to hurry away all the way back to take refuge once again inside the Capitol.

Now, this course through the city, overall confirmed by Appian, albeit with some significant variants (on which more soon), draws a map of the conspirators' movements that emphasises the functional hybridity of the loci they traverse, as well as the potential connotative fluidity of their own actions. Caesar is killed in a senatorial space contiguous to the theatre; the conspirators take shelter within the Capitol but use it also as a political pulpit; they eventually descend from it, the topmost hill of the city and its symbolic head, mingling with the people in the city's most intrinsically hybrid place, the Forum, but then they retreat to the Capitol for fear of the people. What is interesting here is that

\footnotetext{
8 However, the note in the margin of both the 1578 edition (795) and the 1595 one (789) reads: "The murtherers of Caesar doe goe to the Capitoll", thus contradicting what is being narrated in the text. For the Greek original, see Plutarch 1958, 67.2.
}
compared to Antony's ability to deal with the people in the Forum, which in the sources as well as in Shakespeare is entirely discursive and performative, Brutus' own is primarily related to the spaces he physically traverses. Plutarch does not tell us what he says to the people, but we understand that reverence to him is what keeps the crowd silent, while not fully approving of the murder. We understand that Brutus' real strength lies in his widely recognised character - his being an honourable man, an issue which Shakespeare takes up in his development of Brutus' oration and Antony's own deconstruction of it. As Garry Wills has noticed, "Brutus' speech was all an argument from ethos - trust my honorable character" (Wills 2011, 95), and was based on Aristotle's teaching that an orator was to move from logos to ethos in order to be persuasive (Aristotle 1926, 2.1.2-36) \({ }^{9}\).

Appian tells only a slightly different story, but with some significant extra details as to the movements in space and temporal inversion of a few actions: Brutus and Cassius go to the Capitol with the gladiators and bribe the people to get their support; in the Forum these cry for peace and amnesty; Cinna attacks Caesar and suggests that the "killers of a Tiranne" (Appian 1578, 144) be called from the Capitol, but the unbought people do not agree. Then Dolabella speaks and gains the crowd's favour, so that the hirelings feel more confident to demand that Cassius, Brutus, and their associates be summoned from the Capitol. It is only at that point that Cassius and Brutus descend to the Forum, Brutus "with his bloudy hand", and with no show of humility, they praise each other and thank Decimus Brutus for serving "them with swordplayers" before exhorting the people to do the same as their ancestors had done with the kings. In Appian's account they are clearly afraid, as after their speech "they wente vppe againe to the Capitoll, for they dyd not truste verye muche in that multitude" (144). Only at a later stage, when they are informed that the Senate has decided to have Caesar's testament read in public and a public funeral for Caesar celebrated, do they invite the people to go up to the Capitol, and it is at that point that Brutus delivers his second oration. He first justifies his hurried return to the Capitol, "not as m[en] fleeyng to the Temple that haue done amisse, nor as to a fort, hauing

\footnotetext{
9 For the Greek original, see Aristotle 1959, 2.1377b20-31.
}
committed all wée haue to you, but the sharpe \& strange mishap of Cinna, haue compelled vs thus to do" (152). Then he attacks Caesar for his ambition, his anti-democratic politics and for bringing polemos (i.e. war against foreign enemies) into Rome by crossing the Rubicon river with his army. Finally, he pictures himself and his confederates as the defenders of liberty and the common weal, promising that they will not take away the properties Caesar had distributed to the soldiers for their military service, but will recompense the Italian people who had lost their properties for that purpose. The people approve.

Plutarch's and Appian's stories diverge insofar as Appian's sequence of events is in the exact reverse order of Plutarch's: Brutus delivers the first oration at the Forum and the second one at the Capitol; the first oration is not successful, but with the second one he wins the people's favour - the opposite of Plutarch's account. In either case, though, he does not win in the Forum, but when he speaks at the Capitol. Also, Appian depicts a more complex scenario in which Decimus Brutus supports the conspirators with the aid of the gladiators who "had bene in armour from the morning, for the shewe of certaine playes" (141), near the place where Caesar was killed in the Theatre of Pompey. The murderers fear the people and in his second oration Brutus must pretend familiarity and confidence in them to gain their support. He is aware that calling the people to the Capitol means behaving as if in need of taking refuge into a sanctuary or in a citadel; so, by denying that the Capitol is either, he both pleads innocent, because in no need of taking refuge, and claims a bond with the mob, whom he now calls citizens and to whom he declares to entrust himself:

Nowe O Citizens [politai], we be héere with you, that yesterday were in the common court, not as m[en] fleeyng to the Temple that haue done amisse, nor as to a fort, hauing committed all wée haue to you, but the sharpe \& strange mishap of Cinna, haue compelled vs thus to do. We haue herd what hath bin obiected against vs of oure enimies, touching the oth, and touching cause of doubt, \(\mathrm{y}^{\bullet}\) in peace can be no suretie. What we haue to say herein with you O Citizens [politai], we will conferre, with whome we haue to do concerning other common matters. (152)

Brutus suggests communality with them here; and yet, his commitment to republicanism and his willingness to secure peace are not uttered by one of them, but by a patrician who speaks in a place of oligarchic power \({ }^{10}\). He is not on the people's level, but remains above them, and precisely as somebody separate from them he is revered at this point. One is led to wonder who these people are and if they are the same as those he had met in the market-place. Undoubtedly, his audience is not of anybody, but of those gone to the Capitol for the purpose of listening to him. Perhaps it is not coincidental that Plutarch is keen to remark that immediately after the assassination the murderers, "boldly holding up their heads like men of courage, [...] called to the people to defend their liberty", but also "stayed to speak" not with anyone, but "with every great personage whom they met in their way" (Plutarch 1909, 1:103); presumably not with the mixed and cold rabble he will later meet in the Forum.

Interestingly, Shakespeare keeps only one of Brutus' speeches and does not present him as at the same time bold and fearful of the people. His Brutus does not rely on the help of Decius (Decimus Brutus) for the support of the army of gladiators, nor does he use the Capitol as his main pulpit. The Capitol, as already recalled, is where Caesar is killed, and both Brutus and Cassius go straight to the market-place. Brutus' speech retains the forensic quality it also has in Appian, moving from his self-defence to Caesar's indictment, but it relies on the apodictic evidence of Caesar's ambition and anti-republicanism in ways that Appian's shrewder Brutus does not. Famously, Antony will take advantage of his flawed argument and lack of factual proofs. The market-place is where the oratorical competition occurs in Shakespeare, and where in the historical sources Brutus is received coldly. Shakespeare does not dramatize the conspirators' symbolic movement through the city, with their descent and ascent from one city pole to the other. Even their race through the streets significantly remains unshown.

\footnotetext{
\({ }^{10}\) In passing, Brutus is not unaware of the material interests behind the soldiers' gratefulness to Caesar. It is not coincidental that in his oration Brutus confirms the properties they had been given for their military service, but also promises to pay back the people from whom Caesar had taken those lands, so as to make peace between soldiers and people. Brutus' response to a political question is by leveraging the economic interests of both.
}

Timothy Hampton has noticed that "[t]heir only gesture toward the conquest of the city and its inhabitants is the mock triumph of blood-spattered patricians whom Brutus leads through the streets following the assassination" (Hampton 1990, 212). But this is truer with regard to Plutarch's account, and, to a lesser degree, to Appian's, as in Shakespeare that triumph is undramatised and unreported; once in the Forum, their being blood-spattered remains unremarked by the plebeians, who show neither amazement nor horror at their looks, as instead they will in front of Caesar's mangled body. They only ask for satisfaction. If the conspirators are still covered in blood, no one seems to notice it.

Thus, Shakespeare erodes the potentially fluid symbolism of space and transfers Brutus' essential separateness from the people to his brief appearance in the market-place, where the pulpit becomes for him what the Capitol is in the narratives. It does not offer him shelter, but an elevated, detached vantage point from which to address the masses. The sense of oligarchic power conveyed by the spatial symbolism of the Capitol is transferred to that of the high pulpit in the Forum, from which Brutus does not descend, as Antony will, crystallising his own attitude towards the people in his own spatial fixity. Antony will significantly reach down to the crowd, and will ask their permission to do so, as Caesar before him, when at the Lupercalia he had asked them for pardon. This kind of pretended familiarity and complicity with the mob is a performative trait that Shakespeare's Brutus lacks, and is enhanced precisely by the single-scene proxemics in the course of his performance in the Forum, which erases the politics of spaceracing present in the sources.

But Shakespeare also disposes of the political theatrics Appian tells us about with mention of the hired claque in the market-place - a strategy symmetrical to the one at work at the Lupercalia and whose omission emphasises the contrast between Brutus' and Caesar's/Antony's different ideas of leadership and its negotiation. Shakespeare passes under silence Antony's own political tactics after the murder, when Appian tells us that for fear of the conspirators he calls the Senate into the Tellus temple at daybreak,
far away from the Curia below the Capitol \({ }^{11}\). There he skilfully manages to keep the people quiet outside, and to convince the senators inside that the best course is to grant Caesar a funeral, confirm his decrees, bestow amnesty on the conspirators and in this way assure peace. He thus succeeds in containing the people's violence before provoking it in the Forum when he gets full command of the pack. It is precisely this gaining command of the people that constitutes Shakespeare's focus. Between the two orators, and the aristocratic factions, the people are a potentially powerful and shifting border. Brutus is aware of it in the ancient sources, as his fear of them shows, and yet he proves not fully capable of controlling them, even when in Appian we read that he invokes communality with the crowd. Shakespeare downplays Brutus' political acuity and shows him obtusely self-confident about the good reasons justifying their deed. Cassius intuits that the "people may be moved / By that which [Antony] will utter" (Shakespeare 1998, III.i.234-35), but Brutus believes that giving Antony permission to speak "shall advantage more than do [them] wrong" (III.i.242). He does not understand that giving him permission only confirms the aloofness of a leader who has not yet stabilised his mutual bond with the people, which in fact he will soon lose.

\section*{4. Conclusion}

As the rapid transition from III.i to III.ii suggests, when he ascends the pulpit Brutus is still covered in blood. This spectacle of the bloodied assassins has suggested to René Girard that it may have a powerful effect on the populace and their emulative murderous desire. "Needless to say", he points out, "our blood-spattered conspirators do not make a favourable impression, but they make a very strong one and they provide the already unstable populace with a potent mimetic model, a model which many citizens will imitate even and especially if they reject it most violently" (Girard 2002,117 ). We have no hint that they reject it violently, but we know that their violence is unleashed only at a later stage by Antony, after

\footnotetext{
\({ }^{11}\) In fact, it was quite distant from the Forum, beyond the Suburra area, near the place where the Basilica of Santa Maria Maggiore is now.
}
the spectacle of the torn mantle and the butchered body of Caesar. It is hard to tell the actual role that at that point the memory of the blood-smeared conspirators may have on them compared to Antony's narrative and oratorical dexterity in evoking the scene of the murder, which is what prompts them to revolt. But doubtless the sense of a chain-reaction is conveyed by Shakespeare soon after the assassination, when he has Cassius warn Publius to go home for fear of the people's reaction: "lest that the people / Rushing on us, should do your age some mischief" (Shakespeare 1998, III.i.9293). The transition from the murder to the arrival of Antony in the Capitol and then to Brutus' address to the people in the marketplace is quick. Shakespeare might have found a suggestion for cutting the conspirators' moves between the Capitol and the Forum in the erroneous mention of the market-place in The Life of Caesar, as we have seen. But his overall relocation of the whole action in two places has broader implications in terms of space and symbolic polarisation which did not need North's erroneous translation. What is certainly his own choice is the replacement of Brutus' two separate approaches to the people, his second descent to the Forum the next day, as Appian reports, and his reconciliation with the consuls, before the funeral takes place and Antony incenses the crowd, with two short episodes in III.i: the blood ritual and the negotiations with Antony. Erasure of Brutus' complex movements from the Temple of Pompey, where Caesar is killed, to the Capitol, then to the Forum, the Capitol, and the Forum again implies a less meditated approach to the mob on the part of Brutus and the need to condense dramatically, in a single oration, the sense of his shortcomings as a political leader. His failing to talk to the plebeians as one of them, differently from Antony, is how Shakespeare underlines his fundamental lack of communality with the people, which we also sense in his entrenching himself in the Capitol in the ancient narratives. In Shakespeare he does not take refuge but positions himself in the pulpit, distant form the pack: he will be called a new Caesar, but he is still in the process of negotiating a mutual bond with the mass - and this, as Casca reminds us in his report of Caesar's earlier theatrics, also includes the leader's inclination to ask for pardon. Brutus does not apologise but gives his reasons for justifying himself. We do not see Caesar's
performance in the Forum at the Lupercalia, and this increases the sense of uncertainty pervading the whole episode mediated for us by the narrative of a soon-to-become conspirator. But we understand that his bond with the masses needs flexible relations attuned to emotional mobility, and this in turn implies the leader's knowledge of the masses' own changeable moods, and, to some extent, his own submission to them. Singling out that particular detail of the episode of the Lupercalia and displacing it offstage before showing a blood-spattered Brutus on stage addressing the mob as a new Caesar - a title he does not object to when he hears it - was Shakespeare's way of contrasting two radically different models of leaderships. The former is not overthrown by the people, who want to be 'satisfied' after his death; the latter is soon to be eclipsed by Antony, Caesar's real heir as a leader who can command the mass because he too knows how to 'submit to them'.

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\title{
The Tempest: Notes on Date and Text
}

\author{
Roger Holdsworth
}

These notes on The Tempest supplement editorial commentary on the play and correct editors' responses to some of the problems the play poses, problems concerning its date, the accuracy of its text, and the interpretation of certain passages. Included are extended discussions of the much-disputed "wise"/"wife" crux at IV.i.122-24 and the complex shifts of perspective in the Epilogue. The following abbreviations are used for the editions most frequently cited:
\begin{tabular}{ll} 
F & The First Folio of Shakespeare: The Norton Facsimile. Edited by \\
Charlton Hinman. London: Paul Hamlyn, 1968. \\
Kermode \(\quad\)\begin{tabular}{l} 
The Tempest. Edited by Frank Kermode. The Arden \\
Shakespeare. London: Methuen, 1954.
\end{tabular} \\
Lindley \(\quad\)\begin{tabular}{l} 
The Tempest. Rev. ed. Edited by David Lindley. The New \\
Cambridge Shakespeare. Cambridge: Cambridge University
\end{tabular} \\
& Press, 2013.
\end{tabular}
\begin{tabular}{|c|c|}
\hline Norton & The Norton Shakespeare. \(2^{\text {nd }}\) ed. Edited by Stephen Greenblatt, Walter Cohen, Jean E. Howard, and Katharine Eisaman Maus. New York: W. W. Norton, 2008. \\
\hline Orgel & The Tempest. Edited by Stephen Orgel. The Oxford Shakespeare. Oxford: Oxford University Press, 1987. \\
\hline Riverside & The Riverside Shakespeare. \(2^{\text {nd }}\) ed. Edited by G. Blakemore Evans and J. J. M. Tobin. Boston: Houghton Mifflin, 1997. \\
\hline Vaughan & The Tempest. Edited by Virginia Mason Vaughan and Alden T. Vaughan. The Arden Shakespeare. London: Thomas Nelson and Sons, 1999. \\
\hline
\end{tabular}

Unless otherwise stated, The Tempest is quoted from the Folio, along with the act, scene, and line numbers of the Riverside edition; other Shakespeare works are cited from the Riverside. The text used for Ben Jonson is the old-spelling edition of Ben Jonson, ed. C. H. Herford, Percy and Evelyn Simpson, 11 vols. (Oxford: Clarendon Press, 1925-52). The Bible is generally quoted from the Geneva version of 1560. The Oxford English Dictionary, 2 \({ }^{\text {nd }}\) ed., 20 vols. (Oxford: Oxford University Press, 1989), is abbreviated as OED; the databases Early English Books Online and Literature Online as EEBO and LION respectively.

\section*{Date}

There was a court performance of The Tempest on 1 November 1611. How long before that was it written? Plays performed at court were rarely brand new: it was a well-established practice for the Master of the Revels to make his choice from plays which had proved themselves in the commercial theatre in the preceding months; that way "the court could benefit from the selective filter represented by the audiences in the playhouses" (Astington 1999, 216). Composition can therefore be pushed back with some confidence to no later than the first half of the year.

Attempts to fix the earliest possible date have focused on a general belief that The Tempest is indebted to the so-called Bermuda pamphlets, accounts of voyages to the Americas involving storms and shipwreck which were not available in England before autumn 1610. But the case here is, to my mind, very weak. The main supposed source, William Strachey's "True Repertory of the Wreck
and Redemption of Sir Thomas Gates", was not printed until 1625, and more importantly the 'echoes' of this and the other pamphlets which The Tempest is claimed to contain offer nothing beyond the predictable vocabulary any early seventeenth-century account of a shipwreck would be bound to draw on. Shakespeare's use of this material has become an article of faith in Tempest studies, but it perhaps has less to do with the evidence than with a desire to consolidate colonialist readings of the play.

For help with the date of The Tempest editors have been looking in the wrong direction, and further from home than they needed to. Good evidence for the play's earliest possible date exists in the form of another comedy about a conjuror and his assistant, performed by the same company, the King's Men, at the same theatre, the Blackfriars, within months of Shakespeare's play: Ben Jonson's The Alchemist. There are numerous, close, detailed links between these two plays, some of which I have explored elsewhere (Holdsworth 2014). But in which direction does the influence go? Mary Thomas Crane, who notes the plays' shared interest in optical illusion, believes it cannot be determined: "it is impossible to be certain about the chronology and therefore about which play is responding to which" (Crane 2013, 263-64). Certainty becomes possible, however, when it is realised that in some of the links Jonson was repeating material from his own earlier work, thus identifying Shakespeare as the debtor, and The Tempest as the later play.

A striking example is Subtle's threat to Face during their firstscene quarrel:

I'll thunder you, in peeces. I will teach you
How to beware, to tempt a furie againe
That carries tempest in his hand, and voice. (I.i.60-62)
Did these lines by The Alchemist's fake magician give Shakespeare his title of The Tempest, its opening scene of the conjured storm, and its magician who really does carry tempest in his hand and voice, quite apart from its eleven references to thunder? It is not likely that Jonson is remembering Shakespeare's play, since Subtle's speech is a reworking of Mosca's encouragement to Voltore in the trial scene in Volpone, written four years earlier:

> Mercury sit upon your thundring tongue,
> Or the French Hercules, and make your language
> As conquering as his club, to beate along,
> (As with a tempest) flat, our adversaries. (IV.iv.21-24)

And Jonson's self-indebtedness goes back further than this, to his own Every Man in His Humour (1598) where Prospero (Shakespeare borrowed the name for The Tempest), expecting a quarrel, warns of "a tempest toward", but resolves that "my despair" will be slight (V.iii.196-98), thus anticipating also the Shakespearean Prospero's fear that "my ending is despair" (Epilogue, 15).

Briefer phrases which the two plays share point if anything more powerfully to The Alchemist as the earlier work, since their rarity can be checked using databases such as EEBO and LION. In The Tempest's first scene the Boatswain mockingly tells Gonzalo to "use your authoritie" to quell the storm (I.i.23). The phrase occurs at the end of The Alchemist, when Lovewit urges Tribulation Wholesome to inspect his house: "Use your authoritie, search on o' gods name" (V.v.28). Jonson had already used exactly these words in Poetaster in 1601: "use your authoritie, command him forth" (V.i.397). As these are the only three examples of the phrase in all of Jacobean drama, a line of transmission from Poetaster, to The Alchemist, to The Tempest is clearly indicated.

The same is true of The Tempest, II.ii.73, where Stephano (another name Shakespeare took from Every Man in His Humour) encounters what he takes to be a four-legged monster suffering from a fever: "He's in his fit now; and doe's not talke after the wisest". In The Alchemist Face arranges Mammon's assignation with Doll and tells him, "she is almost in her fit to see you" (IV.i.8). Later Doll enters "in her fit of talking", and Mammon cries, "O, / Sh'is in her fit" (IV.v.1, 16-17). Elsewhere in Jacobean drama "in his/her fit" occurs only once, in an earlier Jonson play, Sejanus (1603): "in her fit? / EUDEMUS: She's so, my lord" (I.316); and in combination with "he's" or "she's" it occurs only in these three plays in the entire drama from 1580 to 1660.

One further series of repetitions also places The Tempest at the end of the sequence. At V.i. 227 Alonso is unable to make sense of what is happening: "These are not natural events, they strengthen / From strange to stranger". Shakespeare is again remembering The

Alchemist: "This's strange! [...] this is stranger!", cries Lovewit, as he tries to understand the conflicting reports of his neighbours (V.i.35, V.ii.15). Very rare elsewhere (Shakespeare has no other example), this play on "strange"/"stranger" occurs in an earlier Jonson work, The King's Entertainment (1604), "in this strange attire, / Dar'st kindle stranger, and un-hallowed fire" (555-56), as well as a later one, The Staple of News (1625), "strange turnes [...] Stranger!" (III.ii.25-27). Again the direction of influence seems clear.

The Jonson Folio of 1616 gives The Alchemist's date of performance as 1610. Plague closed the London theatres between July and November in that year, which is no doubt why the earliest record of the play is a production in Oxford in September. In the printed text, however, Jonson goes to great lengths to establish that the events of the play are taking place on 1 November 1610 (Jonson 1967, lxiii, 103). The best explanation of this, I think, is that the Oxford performances were a way of rehearsing the play while the King's Men waited for the London theatres to reopen, and Jonson added the time scheme in anticipation of acting resuming in the capital in November, which it did. Unless Shakespeare accompanied the company to Oxford, he would not have seen The Alchemist until it began its London run. December 1610 is therefore the earliest feasible date for the composition of The Tempest. As Jonson's play was not in print, Shakespeare's knowledge of it most probably came from seeing it acted, which suggests a latest date not far into 1611, while the verbal and other details which he imitated were still fresh in his mind.

\section*{Text}

\section*{I.i.9-10}

AlONSO
Good Boteswain have care: where's the Master? Play the men.
Alonso speaks these three short phrases, his only words in this scene, as he enters with the rest of the royal party. Most editors are unhappy with the apparent sense of "Play the men" ("Act like men") and take "play" as a mistake for, or a spelling of, "ply", so that rather than suddenly addressing the Mariners directly Alonso is telling the Boatswain to urge them on ("Ply the men") as they try
to save the ship. This is not convincing. OED does not recognise "play" as a spelling of "ply", and its closest approach to the required sense of "ply" is "petition, request repeatedly" (v. 5), rather than "urge on" or "set to work". A further objection is that F's "Play the men" was a common expression. EEBO has hundreds of examples, including one from the same year as The Tempest (in Chapman's 1611 translation of The Iliad, "thou shalt know what chiefs, what souldiers play the men"), and some widely quoted biblical instances (including, in the Geneva Bible of 1560, 1 Samuel 4:9, "Be strong and play the men", and 2 Samuel 13:28, "be bolde therefore, and play the men"). It is true that as an admonishment to the Mariners Alonso's remark is "needless and inopportune" (Kermode), since they are not being cowardly or giving way to panic; but this difficulty disappears if one takes him to be addressing not the Mariners but the courtiers, who in their agitation "assist the storme" by getting in the sailors' way, and are then heard "howling" below deck.

\section*{I.i.20-23}

You are a Counsellor, if you can command these Elements to silence, and worke the peace of the present, wee will not hand a rope more

F's "worke the peace of the present" is obviously unsatisfactory, as is demonstrated by attempts to retain it, which are very strained. Riverside's gloss for "the present" is "the present occasion", but in F as it stands this makes no sense, since the present occasion is anything but peaceful. Vaughan offers "make the present moment peaceful", but does not explain how such a meaning can be extracted from what F prints. On the other hand, Kermode, who alters "present" to "presence" in order to import a reference to the peace which should prevail in the king's presence-chamber, admits there is no evidence that "the peace of the presence" was ever used in this way. The problem is "worke the peace of the present". If one removes this first "the" on the assumption that a scribe or compositor added it inadvertently in anticipation of the second one, one is left with "if you can [...] worke peace of the present", which makes appropriate sense (the meaning now is "if you can create peace out of the present situation") and is supported by contemporary usage. Compare "work peace" in Webster's The

White Devil, written 1611-12, "I'll work peace between you" (Webster 2019, II.i.216), and, among many other examples offered by EEBO and LION, William Lithgow, The Gushing Tears of Godly Sorrow (1640), "mercy [...] works peace from gushing eyes" (Lithgow 1640, sig. N1v). F's "of the present" is somewhat elliptical, but cf. Shakespeare's previous play, The Winter's Tale, "The glistering of this present" (IV.i.14).

\section*{I.i.46-47}

GONZALO
I'le warrant him for drowning, though the Ship were no stronger then a Nutt-shell

Gonzalo is offering the joking reassurance that someone as villainous-looking as the Boatswain is destined to hang rather than drown, however frail the ship he is sailing in. Lindley emends "for" to "from", in the belief that as F stands Gonzalo is saying "I'll guarantee that he will drown", which is the opposite sense to the one required. F is correct, however, and the required sense is already present. "Warrant you for" meaning "guarantee that you will not" was a common idiom throughout the period. It occurs close in date to The Tempest in John Dod, Ten Sermons (1610), "they will warrant you for ever being insnared" (Dod 1610, 60), and it remained current to the end of the century, as indicated by Thomas Betterton, The Revenge (1680), "disappoint her. [...] I'll warrant you for doing that" (Betterton 1680, 53).

\section*{I.ii.81-83}

Prospero tells Miranda that Antonio's treachery began when he
new created
The creatures that were mine, I say, or chang'd 'em, Or els new form'd 'em

Prospero may intend an ironic echo of St Paul's assurance of the transformation of identity effected by faith: "if anie man be in Christ, let him be a new creature. Olde things are passed away: beholde, all things are become new" (2 Corinthians 5:17, Geneva

Bible). For "new creature" the Authorised Version of 1611 has "new creation".

\section*{I.ii.181-82}

I finde my Zenith doth depend upon
A most auspicious starre

Prospero's "depend" glances at the idea of one's destiny "hanging" (Latin dependere) in or on the stars, as though physically attached. Cf. Romeo, who fears "Some consequence yet hanging in the stars" (Romeo and Juliet, I.iv.107), and Middleton and Rowley's BeatriceJoanna, who discovers that "Beneath the stars, upon yon meteor [i.e. De Flores] / Ever hung my fate" (Middleton 2007, The Changeling, V.iii.154-55); also Richard Saintbarb, Certain Points of Christian Religion (1589): "if good lucke hang upon the Starres, then our holy obedience unto God doth depend upon them too" (Saintbarb 1589, G1v).

\section*{II.i.275-76, 284-86}

Sebastian
[...] for your conscience [...]
Antonio
[...] where lies that? [...]
[...] you doing thus,
To the perpetuall winke for aye might put
This ancient morsel

Antonio is urging Sebastian to help him kill Alonso and Gonzalo. Lindley, 203ff, and Vaughan, 198ff, note debts to Macbeth in this scene, but Shakespeare was also remembering two further occasions when a murder is solicited and the prospective accomplice hesitates: the exchange between the murderers in Richard III, "Where's thy conscience now? / O, in the Duke of Gloucester's purse" (I.iv.128-29), and Leontes' demand in The Winter's Tale that Camillo poison Polixenes: "bespice a cup, / To give mine enemy a lasting wink" (I.ii.316-17).

\section*{III.i.11-15}

> My sweet Mistris

Weepes when she sees me worke, and saies, such basenes
Had never like Executor: I forget:
But these sweet thoughts, doe even refresh my labours, Most busie lest, when I doe it.

The general sense seems clear: toiling at his log pile, Ferdinand finds that thinking of Miranda and her sorrow for his plight gives him new zest for his work. As he has just announced, she "quickens what's dead, / And makes my labours, pleasures" (6-7). But what is to be done with F's "Most busie lest, when I doe it"? The usual assumption is that "busie lest" is the result of the compositor seeing two words when Shakespeare intended only one, the word being either "busilest" (Kermode; Vaughan) or a related form, "busiliest" or "busil'est" (Orgel; Riverside). The sense is therefore "My thoughts of Miranda refresh my labour most actively when I am engaged in \(\mathrm{it}^{\prime}\). But this is vulnerable on two counts: "busil(i)est" has never been found anywhere else; and Ferdinand is made to say something which seems too self-evident to need saying: how could his thoughts of Miranda refresh his labour when he was not labouring? A better route to intelligible meaning is available if we treat "busie lest" as two words not one, and take "lest" to mean "least". This is how the compositor of the Second Folio of 1632, who replaced "lest" with "least", understood what he saw in his copy, and although "lest" for "least" is not a common Shakespearean spelling, it does occur twice elsewhere in F, in All's Well That Ends Well, IV.ii.31, and Antony and Cleopatra, III.ii.35. Ferdinand's line of thought leads him to a paradox: as he works, Miranda's restorative effect on him is such that the more busied he is by his labour the less busied by it he is; he is thus "most busy least". This paradoxical play on "most"/"least" is a Shakespearean favourite; cf. especially The Taming of the Shrew, "seeming to be most, which we indeed least are" (V.ii.175); A Midsummer Night's Dream, "In least speak most" (V.i.105); and Sonnet 29, "With what I most enjoy contented least" (8); also Love's Labour's Lost, II.i.58; Romeo and Juliet, V.iii.223-24; and Sonnet 125 (14).

\section*{III.i.39-42}
full many a Lady
I have ey'd with best regard, and many a time Th'harmony of their tongues, hath into bondage Brought my too diligent eare

In a play much occupied with forms of servitude, it is not surprising that Shakespeare has Ferdinand introduce the idea of the ability of language, spoken or sung, to "bind" or "chain" the ear. Cf. Marvell's "A Dialogue between the Resolved Soul and Created Pleasure", where the Soul rejects Pleasure's "charming airs": "Cease tempter. None can chain a mind / Whom this sweet chordage cannot bind" (Marvell 2007, 36)¹. Eloquence was emblematised as a figure "with chains of gold and amber binding listeners' ears to his tongue" (Jonson 2012, 3:142).

\section*{III.i.44-46}
some defect in her
Did quarrell with the noblest grace she ow'd, And put it to the foile

Most editors understand "foile" in the sense of "sword, rapier", and gloss Ferdinand's "put it to the foile" as "challenged it, as at a fencing match" (Orgel). Dissatisfied with this, Lindley assumes a misreading of long " s " as " f " and emends "foile" to "soil", taking the phrase to mean "sullied it". Both responses are mistaken. There is no evidence that "put to the foil" was used in the sense proposed, or that "put to the soil" was in use at all. "Put to the foil" was, however, a standard expression in wrestling, meaning "to subject one's opponent to a fall", and this is the origin of the phrase employed here: see OED, "foil", n. 2, 1, 2.a. There is no need to suppose that wrestling is being specifically invoked, as by the date of The Tempest only a general sense of "thwart, defeat" could be intended: cf. John Frewen, Certain Sermons (1612): "the doctors and learned men were oftentimes confounded and put to the foil" (Frewen 1612, Z4v).

\footnotetext{
1 There is a pun on "chord"/"cord".
}

\section*{III.ii. 130}

O forgive me my sinnes

Trinculo, drunk and terrified, is resorting to Scripture: "And forgive us our sinnes" (Luke 11:4, Geneva Bible). Cf. Alonso's reference to "my Trespasse" in the following scene (III.iii.99), with its suggestion of "forgive men their trespasses" (Matthew 6:14).

\section*{III.iii.68-70}

But remember
(For that's my businesse to you) that you three
From Millaine did supplant good Prospero
"But" here means "just" or "only", not "however". Cf. Richard III, "O but remember this another day, / When he shall split thy very heart with sorrow" (I.iii.298); Sir Thomas More, "Good sir, be still your selfe, and but remember..." (Greg 1911, 48).

\section*{IV.i.122-24}

Ferdinand
Let me live here ever,
So rare a wondred Father, and a wise
Makes this place Paradise

Does Ferdinand say "and a wise" or "and a wife"? Is he adding to his praise of Prospero, or declaring Miranda's equal contribution to his perfect Eden? F, and the three reprints of F which followed in 1632, 1663, and 1685, all have "wise", but Nicholas Rowe in his Works of Mr William Shakespear of 1709 printed "Wife". Supporters of Rowe call his change "an emendation", as though he saw "wise" in his copy (he used F2 rather than F), judged it a mistake, and replaced it with "Wife" (Wayne 1998, 184). It is just as likely, however, given his own tendency to error and the frequency of " f "/long " s " confusions in early modern texts, that the mistake was Rowe's; that he misread F2's "wise" as "wife", capitalising the word as was his normal way with nouns. Whatever the truth of this, "wife" has made regular appearances in editions of The Tempest ever since, sometimes with no indication that a change has been made to the Folio text. Indeed, for a time at the end of the last
century it was possible to maintain that no change had been made at all. In 1978 Jeanne Addison Roberts noted small differences in the look of the word when the Folger Shakespeare Library's large collection of First Folios were compared with one another and announced that it was actually "wife". The crossbar of the " f " had broken off during printing, giving the semblance of a long " \(s\) ", but the letter was still recognisably an " f " in some copies (Roberts 1978). For a while, Roberts' claim guided both texts and interpretations of the play. "Wife" was Orgel's choice in his 1987 edition, where in the textual notes it is designated "F". With its suggestion of a gender-inclusive Shakespeare it was hailed as "a reading whose time has come" (Orgel 1986, 64).

Only for a while, however. In 1996 Peter W. M. Blayney reported the results of close - microscopically close - inspection of the disputed letter as it appears in the Folger's eighty copies of F and unequivocally rejected Roberts' finding. The supposed " f " whose crossbar slowly broke away creating the illusion of a long " \(s\) " was itself an illusion: a consequence of "an extraneous bit of inked matter (a piece of lint, perhaps)", leaving a trace on the paper². In F at least, "wise" was always "wise".

But before F? "Wife" supporters have continued their attempts to dislodge or at least weaken the claim of "wise" by pointing out that "to misread 'wife' as 'wise' would be an easy error by the compositor or by the scribe" (Lindley, who opts for "wife"). Shakespeare may therefore "have intended 'wife' all along" (Vaughan, who reluctantly reads 'wise'), and "editors who prefer wife have valid grounds for emendation" (Mowat 2016, 1657). Valerie Wayne seeks to fortify her stance of studied indecision (which legitimises "wife" as a valid alternative) by attacking the phallic bias of male bibliographers such as Blayney and Hinman, who bullyingly insist on certainty instead of leaving the case open (Wayne 1998, 186-87) \({ }^{3}\).
"Wise" supporters, of whom I am one, might object that the mere fact that two letters can be confused with one another is not in itself "valid grounds" for rejecting one and replacing it with the

\footnotetext{
2 See Mowat 2016, 1656-57, summarising Blayney's conclusions.
3 The prejudice and muddle which sustain Wayne's argument are ably exposed by Ronald A. Tumelson II 2006.
}
other. As Lindley notes, "everything turns on editorial judgement of the more persuasive reading in context". He means this as opening the way to "wife", but when contextual fit is considered everything points away from "wife" and towards "wise". "Wife" suppresses the "wise"/"Paradise" rhyme (albeit with a short second line) which Shakespeare uses elsewhere, in Love's Labour's Lost, IV.iii.70-71. It creates a double subject with a singular verb - not unknown in Shakespeare but certainly not common. It is syntactically inept, since it is not clear if "wondered" modifies only "father" or "wife" as well. It is inaccurate, since Miranda is not yet Ferdinand's wife, and it reduces her grammatically and actually to an appendage (" \(a\) wife" - any wife?). It is also theologically adrift. God did not make the original Paradise with Eve's help, and if we are to think of the Paradise to which mankind will one day be readmitted, the Bible explicitly excludes marriage from it: there will be no more husbands or wives (see Mark 12:25; Luke 20:35).

No doubt most of these objections could be argued away plausibly enough, but the real case for "wise" rests not on the reasons to reject "wife" but on the verbal and thematic compatibilities which embed "wise" in the passage. Here are three of them.
1. "a wondred Father, and a wise": this rhetorical manoeuvre, which ensures that a second modifier receives as much emphasis as the first by adding it after the noun it modifies, is widely used in the period, in the drama (as in Thomas Nashe, Summer's Last Will and Testament, 1600, "a rich man, and a miserable" [Nashe 1600, C1r]) and elsewhere, e.g. Mark 6:20 in the Geneva and Authorised versions, "a juste man, and an holie". In Shakespeare it occurs several times, including The Taming of the Shrew, "A proper stripling, and an amorous" (I.ii.143), and All's Well, "A shrewd knave and an unhappy" (IV.v.63). As in The Tempest's "a wondred [...] and a wise", alliteration sometimes boosts the emphasis: EEBO offers "a carefull husband, and a kinde", "A lowd wife, and a lazie", "a gay man, and a great", and "a good man, and a godly-most" 4 . Versions of the formula which end "and a wise" are especially frequent. EEBO has thirty-four examples between 1525 and 1660,

\footnotetext{
4 In, respectively, Wotton 1578, 344; Fletcher 1647 [c. 1620], 91; Chapman 1639 [c. 1615], B2r; Sylvester 1620, E8r.
}
including several which alliterate (for example, "a worthy knight and a wise" [The Right Pleasant and Goodly History 1554, 2B3r]), and one which both alliterates and employs "rare": "a Rare workman, and a wise" (Everard 1657, 176). Note also Shakespeare, Romeo and Juliet, "a good lady, and a wise and virtuous" (I.v.113).
2. "So rare a wondred Father, and a wise": retaining "wise" leaves intact an echo of a proverb: "A wise man is a wonder" (Tilley 1950, M423). Ferdinand's "wondred" makes the echo specific, but his addition of "rare" widens the compliment to include a similar contemporary commonplace, which declares that a wise man is as excellent as he is uncommon. Note the following, which as in The Tempest combine the two senses of "rare": "to be wise is to be rare, for it is rare to see a wise man" (Every Woman in Her Humour 1609 [c. 1606], B2r); "to find a wise man, it is rare" (Lok 1597, 97); "you are wise Sir, tis a rare Jewell" (Fletcher 1616 [1613], B2v). A further link with "rare"/"wise" couplings in the period is the addition of an intensifying "so": compare "so rare and wise" (Crimsal 1633, A1r); "so wise, so rare a man" (Daniel 1605, C6v); and "excellent Commanders are so rare, / Because they must be very wise" (Hubert 1628, 77). Clayton makes the additional point that "wise" "dialectically complements 'wondered', rounding out Prospero as Ferdinand sees him" (Clayton 2016, 441).
3. "A wondred Father, and a wise / Makes this place Paradise": Ferdinand's rapturous likening of Prospero to the Christian God the heavenly Father, doer of "wondrous works" (Psalm 119), the maker of Paradise - again points strongly to "wise". Ferdinand seals his comparison by including God's primary attribute, his wisdom. "God only wise", the Bible repeatedly insists, "God is above all, most wise"; "there is none more wise than the most High". Like Prospero's, God's wisdom is that of a benign patriarch: "The Father alone [is] said to be King, immortall, wise" \({ }^{5}\). Ferdinand enlists the analogy again when he says that from Prospero he has received "a second life" (V.i.195).

It is true that having Ferdinand acknowledge that a wife as much as a father-in-law is needed to create his paradise would help the play's romantic hero look a little less male-orientated. But it can

\footnotetext{
5 Romans 16:27; 1 Timothy 1:17; Jude 1:25; Romans 11:34 (note in the Geneva version of 1587); 2 Esdras 7:19; John 17:3 (note in Geneva 1587).
}
be argued that such a redrawing of allegiances would be false to the play and false to Shakespearean comedy in general, where male bonding regularly obstructs and sometimes sabotages comedy's conventional prioritising of heterosexual union. And beyond Shakespeare, Ferdinand's celebration of a men-only Eden is in tune with a long-standing line of thought which held that Adam's preEve existence was mankind's most perfect time. "Such was that happy garden-state", remarks the speaker of Marvell's "The Garden", "While man there walked without a mate: [...] Two Paradises 'twere in one / To live in Paradise alone" (Marvell 2007, 158) \({ }^{6}\). Having Ferdinand include Miranda here might improve our view of him, but advocates of the change could be accused of seeking to reprogramme the play for the present century, if not of trying to save the play from itself.

\section*{IV.i. 123}
wondred

OED finds only four examples of this word. Three of them (two dated 1595 and a third 1612) it glosses as meaning "wonderful, marvellous". The fourth is the Tempest example, for which it creates a separate sense, "performing such rare wonders". Several editors accept this, but it is surely too much of a stretch to derive such an elaborate, active use from a single past participle. "Wondrous, to be wondered at" fits the context, as it does that of the other three examples, so only a single sense is probably involved. This is supported by two earlier uses which OED has missed. In the 1590 edition of The Faerie Queene Jason's ship is "The wondred Argo" (Spenser 1590, 2A4v), and in Thomas Lodge's The Wounds of Civil War, printed in 1594 but written up to seven years earlier, the Romans possess "the wondered Legions of the world" (Lodge 1594, B3r).

\section*{IV.i.264-65}

Shortly shall all my labours end

\footnotetext{
\({ }^{6}\) For discussion of Shakespearean and other early modern all-male utopias, see Holdsworth 2009.
}

Prospero is announcing the imminent fulfilment of his plan to regain his dukedom and marry Miranda to Ferdinand, but his words, assisted by the comprehensiveness of all, resonate beyond their surface meaning. The end of labour was a way of thinking of the end of life, as in George Sandys' Christ's Passion (1640), where Christ declares, "All is finished, here my labours end" (Sandys 1640, D2r), and Robert Aylett's "Meditation of Death": "To all that labour, pleasing is the end" (Aylett 1622,54). The analogy occurs in Stoicism, but it was also biblical: "The dead which die in the Lord, are fully blessed [...] for they rest from their labours, and their workes follow them" (Revelation 14:13, Geneva Bible) \({ }^{7}\).

Editors' missing of this suggestion of mortality is part of a larger failure to note the heavy sense of an ending, for Prospero, for the play, for its audience, that Shakespeare is at pains to develop well before the end arrives. The Tempest begins by telling us we are witnessing only the end-phase of an otherwise undramatised story which started "In the dark backward and abysm of time [...] Twelve year since [...] twelve year since" (I.ii.50-53). Time is "now" (to use a frequently employed word) making up for lost time by driving urgently towards its own terminus. "'Tis time", Prospero informs his daughter, "The howr's now come, / The very minute byds thee ope thine eare" (I.ii.22, 36-37).

Time's power and passing are underlined by making Prospero not only its spokesman but its captive, for whom time is running out. The point needs stressing, as we are often told he is still quite youthful. According to Vaughan he is perhaps "as young as 35 " (24); far from nearing his end, "we prefer to think of Prospero as a middle-aged man who looks forward to regaining his dukedom and watching his grandchildren grow up" (284). This is not a preference the text supports. In IV.i, even as he directs the masque which celebrates Ferdinand and Miranda's betrothal and happy future, he implies that his own future is limited: his "weaknesse" and "infirmitie" are more than his "old braine" can cope with (15960). As the play reaches its last scene, its protagonist seems also to be reaching his: he will "retire me" (not simply return) to Milan, where "Every third thought shall be my grave" (V.i.311-12). Now a character without a role, all that remains to him is to tell "The story

\footnotetext{
7 Note also Stradling 1625, 192: "the end of all their labours shall be rest".
}
of my life", a prospect Alonso savours: "I long / To heare the story of your life" \((305,312-13)\). Again there is a suggestion of cessation: we seem to be promised the story of a completed life, even though its subject is the teller. Was Shakespeare thinking of a much-quoted text in the Psalter about life approaching its terminus? "All our dayes are gone: we bring our yeares to an end, as it were a tale that is told" (The Book of Common Prayer 1603, F8r). That he was is suggested a few lines later by the Epilogue, where Prospero speaks of himself as a fictional character suddenly aware that he has little story left. His one anxiety is the kind of "ending" (15) that awaits him.

\section*{V.i.48-50 \\ Graves at my command \\ Have wak'd their sleepers, op'd, and let 'em forth By my so potent art}

These lines conclude Prospero's impassioned celebration of his magic which begins "Ye Elves of hils, brooks, standing lakes" (33); they are immediately followed by his decision to renounce conjuring altogether ("But this rough Magicke / I heere abjure", 5051). The position of this final claim may be significant, as for the first time Prospero crosses a line between the ability to control the natural world (all his other examples of his skill come down to influencing the weather) and necromancy, traffic with the dead, which was viewed unambiguously as one of the black arts, and therefore needing his rejection of it if he is to retain the audience's approval. Perhaps Shakespeare's intention was to have him come to this ability in his repertoire and then recoil from it. By "this rough magic" he may therefore mean this particular skill rather than magic in general, though it still prompts him to throw his book of spells into the sea.

As is well known, the celebratory part of Prospero's speech is a careful paraphrase of Medea's address to Hecate in Book 7 of Ovid's Metamorphoses. Shakespeare went occasionally directly to Ovid, but it is clear that on his desk as he wrote was Arthur Golding's verse translation of 1567, for Golding's English is
sometimes repeated in detail \({ }^{8}\). The passage under discussion, however, is an exception. The Ovidian equivalent is only three words, "manesque exire sepulcris", and Golding offers little more: "I call up dead men from their graves". Rather than make do with this, Shakespeare replaced it with a memory of Matthew's account of the aftermath of the crucifixion: "the graves did open them selves, and many bodies of the Sainctes which slept, arose, and came out of the graves" (Matthew 27:52-53).

What triggered the switch from a classical to a biblical source? The previous sentence in The Tempest reads "The strong bass'd promontorie / Have I made shake" (46-47), which was all Shakespeare did with Golding's "I make the mountains shake, / And even the earth itself to groan and fearfully to quake". However, Matthew introduces his walking dead by noting "the earth did quake". It must have been reading "the earth [...] to quake" in Golding that recalled the New Testament passage to Shakespeare's mind. Was he conscious of its origin when he inserted it? And if so, what was his intention in having Prospero boast of his power to resurrect the dead in terms which describe the death and resurrection of Christ? If we answer 'yes' to the first question, the best answer to the second is that he wished to make shockingly clear the blasphemous path Prospero is embarked on, as a way of explaining his abrupt renunciation of all occult practices which follows.

\section*{V.i.206-13}

O rejoice
Beyond a common joy, and set it downe
With gold on lasting Pillers: In one voyage
Did Claribell her husband find at Tunis, And Ferdinand her brother, found a wife, Where he himself was lost: Prospero his Dukedome In a poore Isle: and all of us, our selves, When no man was his owne.

Dennis C. Kay, in a note on Gonzalo's pillars, has sent commentators in the wrong direction by claiming that Gonzalo is

\footnotetext{
8 See Bate 1993, 249-54. The relevant extracts from Ovid and Golding are in Orgel, 239-41.
}
referring to the pillars of Hercules, adopted by Charles V as an emblem of his rule (Kay 1984). The suggestion of imperial ambition would have little relevance to Shakespeare's play, where the emphasis is hardly military, and more on personal than political recovery. In any case, assuming a reference is present, Kay has missed a far more likely candidate: the method chosen by the Swiss states at the Disputation of Berne in 1528 to commemorate their decision to reject Catholicism and become Protestant. John Foxe first described how the event was marked:

> The day and the yeare when this reformation with them began, from Popery to true Christianitie, they caused in a pillar to be engraven with golden letters, for a perpetuall memory to all posteritie to come. Victory of the Gospel. an. 1528. (Foxe 1570,1024 )

Foxe's account is frequently repeated in contemporary sermons, and his pillar becomes "pillars", and the memory "lasting", as in The Tempest \({ }^{9}\). The meaning of the event, for Shakespeare's Protestant audience at least, was deliverance from error, which is how one might describe one of The Tempest's main concerns.

There is more occurring in the passage, however, than the insertion of an historical parallel. The Swiss pillars bear merely a date, whereas Gonzalo's will spell out almost the entire plot of the play. Or a version of it. Like Horatio's "true delivery" of what has happened in Hamlet, Gonzalo's account is coherent but reductive. Although Claribel has "found" a husband in Tunis, she has not done so in the way that Ferdinand found a wife on the island. Nothing contradicts Sebastian's claim that she was forced to marry and loathed her father's choice (II.i.129-33). Gonzalo declares that "all" have found themselves, but no benign self-discovery is detectable in Sebastian or Antonio, the latter possessing "an evil nature" and a capacity for falsehood which has "no limit" (I.ii.9396). And Gonzalo's "all" does not include the unteachable Caliban, of whose existence he is unaware, and whom it seems beyond the play's power to define or make sense of. Even as The Tempest

\footnotetext{
9 For example, Heywood 1679, 186: "the City Zurick ingraved the Year of their deliverance from Popery upon Pillars, in Letters of Gold, for a lasting memorial".
}
negotiates its own conclusion, it begins to signal the form which conflicting interpretations of The Tempest will take.

\section*{V.i.242-45}

This is as strange a Maze, as ere men trod, And there is in this businesse, more than nature Was ever conduct of: some Oracle Must rectifie our knowledge

Editors do not comment on Alonso's "rectifie", though Shakespeare had not used the word before (in the later Henry VIII it occurs twice). It sounds somewhat pedantic in context, and in its standard sense of "correct" it is not quite appropriate, as the Neapolitans are in a state of bewilderment rather than error. Rectification was, however, a stage in alchemy, and alchemical terms become more frequent as Prospero's "Project gather[s] to a head" - itself an alchemical phrase (V.i.1). Cf. Joseph Du Chesne, The Practice of Chemical and Hermetical Physic (1605): "Rectification, is a reiterated Distillation to perfection"; "Aqua vitae [...] thou shalt rectifie to the highest perfection" (Du Chesne 1605, 2A4v, R1r). Alonso's meaning is therefore closer to "refine, improve" than "correct" \({ }^{10}\).

Who is the oracle who must rectify our knowledge? Is it, as well as the play's protagonist, its author, who has an oracle's unique access to all secrets, and to their consequences? If so, this can count as another of The Tempest's many debts to The Alchemist. There, too, Jonson is occupied with constructing a sly portrait of the artist: in this case the master alchemist Ben Jonson, engaged in turning the dross of petty London swindlers and their dupes into the gold of great comedy.

\section*{Epilogue, 1-20}

Spoken by Prospero
Now my Charmes are all ore-throwne,
And what strength I have's mine owne,
Which is most faint: now 'tis true
I must be heere confinde by you,

\footnotetext{
10 On the play's use of alchemical terms, see Holdsworth 2014, 86-87, and Roulon 2019.
}

Or sent to Naples, Let me not Since I have my Dukedome got, And pardon'd the deceiver, dwell In this bare Island, by your Spell, But release me from my bands With the helpe of your good hands:
Gentle breath of yours, my Sailes Must fill, or else my project failes, Which was to please: Now I want Spirits to enforce: Art to inchant, And my ending is despaire, Unlesse I be reliev'd by praier Which pierces so, that it assaults Mercy it selfe, and frees all faults. As you from crimes would pardon'd be, Let your Indulgence set me free. Exit.

It is sometimes suggested that F's heading to the Epilogue is an embellishment added by Ralph Crane, the company scrivener who copied out the text for publication. Nevertheless, if Shakespeare was not responsible for "Spoken by Prospero", he might well have approved its insertion, since it anticipates the Epilogue proper by teasingly begging the question as to the identity of the figure who, after "Exeunt omnes", returns alone to deliver the play's valediction. The twenty lines that follow are Shakespeare's boldest juxtaposition of what for every audience are conflicting levels of knowledge as it responds to the illusionistic nature of theatre and, like Antonio, "credits its own lie" (I.ii.102) by taking make-believe for fact. There is no single answer to the question, 'Who is speaking?' The speaker takes on different identities which alternate, merge, or are superimposed on one another as each line follows the line before. At first we seem still to be watching the "real" Prospero, who has re-entered for a final soliloquy about his lost powers. His opening reference to "my Charmes" connects him with this character's double use of "my charms" in the previous scene (V.i.2, 31), and "Prospero" continues intermittently to be in charge when he mentions Naples, his dukedom, the "bare island" where the play has been set, and the loss of his "art" and of the "spirits" which assisted it. But with the emphatic "you" at the end of line 4 a different speaker, the actor for whom Prospero was
merely a role, is suddenly audible, and we are invited to hear the speech again according to a quite different set of meanings. "My Charmes" are not the character's magic spells but the actor's qualities which allow him to charm and fascinate his audience, the "art" not the dark arts of the magician but the skill of the performer, "spirits" mental strengths, not supernatural beings. "Heere [...] In this bare Island" is the projecting stage of the Globe or Blackfriars theatres, "bare" because devoid of scenery, and this speaker "enchants" not by laying people under spells but delighting them.

Is "pardon'd the deceiver" another of these ambiguities? Commentators, if they pause over the phrase at all, do so only to tell us that the deceiver is Antonio, who does seem to be the character referred to: Antonio was pardoned by Prospero when Prospero chose to "forgive" his brother's "rankest fault" (V.i.13132). But "the deceiver" is oddly cryptic: why not name him, even if to call him "brother" would infect Prospero's mouth (V.i.130-31)? And "deceiver" is perhaps not quite the right term for someone so undisguisedly unpleasant. The uncertainties are deliberate, as they encourage the thought that the title might better fit someone else. Pursuing that idea, one comes immediately to Prospero himself, the play's arch-deceiver who in the opening scene deceives everyone, the characters experiencing the storm and the audience watching it, as to what kind of storm it is, and whose deceptions then create the rest of the play, until he "discases" himself in the final scene. To admit him as an alternative (or addition) to Antonio we merely need to suppose that having his "dukedom got" his first act has been to pardon his own trickery.

There is another candidate: William Shakespeare. Imagining a character, or an actor, in The Tempest branding the playwright a deceiver might suggest that one is confusing Shakespeare with Pirandello, but it is not a particularly bold step, as it was a commonplace of Renaissance aesthetic theory that all art dealt in falsehood. "It has been said of Poetry and Painting", John Bulteel observed, "that he that could deceive best, was the most worthy, because that is the end of those Arts" (Bulteel 1683, 328). The idea reinforces the link between Prospero and his creator that many critics have detected, as writer and conjuror become one and the same. Davenant suggested that "we may descend to compare the
deceptions in Poesie to those of them that professe dexterity of Hand, which resembles Conjuring [...] [We] are content (if we like the carriage of their feigned motion) to pay for being well deceived" (Davenant 1650, B3v). One wonders if Davenant remembered his comparison when, seventeen years later, he adapted The Tempest for Restoration audiences.
"'Tis all deceptio visus", Face remarks toward the end of The Alchemist (V.iii.61), describing the play he is in, and plays in general, as well as his alchemical scam. Does the supposed relationship between drama and deceit account for the depressed tone of the Epilogue, where "prayer" rhymes with "despair", "faults" become "crimes", and none of the figures who speak or are referred to achieves the "release" he seeks? The lines keep their secrets, provoking questions and withholding answers. Why, for example, does Prospero say that he might be "sent" to Naples rather than go there, when it was a trip he himself proposed (V.i.308)? It seems that this Prospero, having broken out of the play, is suddenly under the control of an audience which has acquired the author's power to decide his movements. Later the audience gains still more power when it is accorded a priest's authority to grant "indulgence" for sins, so their consequences might be escaped. But what are the sins, and who is the sinner? Two more examples: when the speaker requests the help of the spectators' hands to release him, what does he envisage that their hands will do: untie his bonds, be brought together in prayer, applaud, or break an evil spell (which a clap of the hands was thought to do)? And finally: how should we hear the Epilogue's penultimate line, "As you from crimes would pardon'd be"? Evenly stressed, with a stress on "you", or a stress on "crimes"? It is typical of this play that each version of the line is valid, but choosing one shuts down meanings that only one of the others makes available.

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\title{
Resisting Friendship in Shakespeare \({ }^{*}\)
}

\author{
Tzachi Zamir
}

Friendship is a lauded value since antiquity. Your friends remain with you not due to blood ties. They are not sexually drawn to you, or have fallen in love or borne children with you. Unlike colleagues, your friends are typically not your business partners. They are not clients you court, nor are they those you must smile at because they oversee your promotion. Friends simply choose to spend time with you; follow the arc of your life supportively; think and feel for and with you; act on your behalf; help you in time of need, and value your very existence (while you choose to do the same for them). If

\footnotetext{
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}
someone opts to do this for your sake, you must have done something right, and are on your way to happiness. Because friendship is unforced and independent of instrumental calculations, it possesses a unique quality, which explains why Aristotle, Cicero, Themistius, and many others, have showered praise upon its head, regarding friendship as one of the noblest and ennobling qualities of human life. A "marriage of the soul" is Voltaire's definition in his Philosophical Dictionary (Grayling 2013, 102). Cicero concludes his treatise on the topic by asserting that, aside from virtue, friendship is "the greatest thing we can find in life" (Cicero 2018, 177) \({ }^{1}\).

In Shakespeare's England, people did not merely read treatises on friendship, but composed new ones or read translations of contemporary offerings written in the Continent - Erasmus devoted many adages to the value of friendship; Castiglione's Book of the Courtier describes supreme friendship as yielding "all the good that life holds for us" (Castiglione 1959, 125). In England, Churchyard and Dorke wrote essays glorifying this relationship. The fourth book of Spenser's Faerie Queene is devoted to friendship. Cicero's De Amicitia was sufficiently familiar for Greene to weave an entire play around Cicero's own friendships (Ciceronis Amor: Tullie's Love) \({ }^{2}\). 'Friendship' probably had a broader meaning than it has today. According to historian of friendship Alan Bray, the tradition of wedded brothers was still very much alive, as may be gathered from graves whereby two men were buried together with the approval of the church (Bray 2003, 84-104). Yet, to overemphasize such differences risks losing sight of the overlap with current usage. What you and I regard as friendship was highly valued in early modern England.

Where does Shakespeare stand on the issue of friends, given the centrality of friendship in his culture? Disregard duplicitous friends (Rosencrantz, Guildenstern, Scroop, Iago). Ignore trustworthy underlings (Kent, Emilia, Enobarbus). Focus, rather, on real friends: those who supportively follow us over a substantial

\footnotetext{
1 For a thoughtful historical overview, see Grayling 2013.
2 For a detailed survey of this literature, see Mills 1937.
}
period of time, spend pleasurable hours with us, seek our best interest without being compelled to do so. With the exception of Hamlet's Horatio, we do not find such characters in his tragedies. None feature in Coriolanus, Macbeth, King Lear, Antony and Cleopatra, Othello, or Titus Andronicus. Romeo is orbited by playful buddies, but he keeps these in the dark regarding his entanglements. As for Horatio, he is mostly limited to being an aloof confidant. His lament over Hamlet - "Now cracks a noble heart. Goodnight, sweet Prince, / And flights of angels sing thee to thy rest" (Shakespeare 2016, V.ii.343-44) - misses the personalized feelings of loss which characterizes Shakespeare's most memorable mourners \({ }^{3}\).

Friends can, however, be found in the comedies, heavily dominated by the love-friendship tension. In eliciting dramatic dividends from this conflict, Shakespeare was no innovator. Chaucer made Palamon and Arcite - sworn friends - fight over Emelye in The Knight's Tale. Boccaccio did the same for Titus and Gisippus in relation to Sophronia in Decameron, and Thomas Elyot imported this plot to England (and to English) in his The Book Named the Governor. John Lyly's Semele (Endymion, or The Man in the Moon) mobilizes a powerful conflict within Eumenides when he falls in love with her despite his awareness that she is loved by his friend Endymion. In another of Lyly's plays (Euphues), the eponymous character betrays his friend Philautus upon being smitten with Lucilla. In Greene's Philomela, a man asks his friend to seduce his wife in order to test her fidelity (I leave the reader to guess whether this turns out to be a wise strategy).

\footnotetext{
3 Moreover, to the extent that Hamlet's friendship with Horatio echoes the one between Orestes and Pylades, it is striking to see the degree to which Shakespeare removed traces of physical warmth from the relationship. In Lucian, Orestes undergoes a seizure, and "Pylades 'wiped away the foam, tended his body, and covered him with his well-woven cloak' acting not only like a lover but like a father" (Lucian 1996). Horatio and Hamlet are committed to each other, but the quality remains reserved.
}
1.

Dramatists around and before him were mostly milking dramatic payoffs from the dugs of rival attachments. Shakespeare chooses to do so as well. Yet his seismometer also records how love causes the subterrestrial plates of identity to metamorphose, cracking, on the way, the very foundations of friendship. The lover's family is too distant to register the change. Friends, by contrast, can get close enough to notice how, as part of that joy-riddled trauma we call 'love', Cupid does not merely fire arrows at his victims, but also transfigures them \({ }^{4}\).

Shakespeare's most explicit demonstration of such disturbing rebirth is not part of comedy. Mercutio laments how Romeo has been killed by love:

Alas, poor Romeo, he is already dead, stabbed with a white wench's black eye, run through the ear with a love-song, the very pin of his heart cleft with the blind bow-boy's butt-shaft [...]. (Shakespeare 2003c, II.iv.13-15)

Mercutio erroneously believes that Romeo is still in love with Rosaline, thereby underscoring the extent of the infatuated youth's detachment from his friends. Yet he tellingly evokes figures of violent death in his ridicule. When Romeo steps into the scene and

\footnotetext{
4 For Tom MacFaul, the weakness perceived in the perfect friendship ideal by contemporary critics such as Shakespeare resided in placing false hopes in unchanging selves: "The ideal of perfect friendship suggests a beautiful particularity of relationship between individuals that becomes increasingly necessary in a socially and physically mobile society. It allows other people to anchor one's identity. Yet the dreams of stasis in friendship are always just dreams. Humanist texts may present fictions of one soul in bodies twain, but the drama presents the shifting and untrustworthy nature of friendship even as it recognizes the desire for stasis" (MacFaul 2007, 19). This strikes me as overly strong, implying that friends must resist any significant changes in one another and that the critique would vanish for friends who happen to accept the instability of selves. In the following examples I will be making a different claim, which avoids this implication and does not necessitate ascribing to Shakespeare a metaphysical commitment to fluid selves: regardless of whether or not selves are permanent or everchanging, friends will object to some changes, which, in turn, is why friendship would be resisted by those it aims to restrict.
}
consents to engage in a banter with Mercutio, the latter rejoices, applauding Romeo on his revival by way of reclaiming his former self:

> Why, is not this better now than groaning for love? Now art thou sociable, now art thou Romeo; now art thou what thou art, by art as well as by nature, for this drivelling love is like a great natural that runs lolling up and down to hide his bauble in a hole. (72-75)

Mercutio is elated by Romeo's return to his 'Romeo-ness'. You have not been yourself. Now, you are.

What ostensibly seems like an instance of a friend's enviousness of the lover is never merely such in Shakespeare's comedies. 'Jealousy' is induced not merely because of the friend's decreasing affection. It is triggered by what the friend becomes. Love is capable of distorting a friend's morality. In such episodes, the friend-turned-lover does not merely betray his soul mate, but also grows wicked. "In love, / Who respects friend?", Proteus asks Silvia, by way of excusing his treachery towards his best friend, Valentine (Shakespeare 1994a, V.iv.53-54). In Much Ado About Nothing, an enraged Beatrice instructs an obliging Benedick to kill Claudio, his best friend. Beatrice's motives are clear: Claudio has gravely wronged her own friend and relative. Yet, even in the height of her rage, she feels that Benedick is not the person who ought to carry out her vindictive intent ("It is a man's office, but not yours" [Shakespeare 2003b, IV.i.258]). Benedick should realize this, too, retaining enough love for Claudio to either try for some peaceful middle way or, at the very least, avoid becoming her sword-bearer. Instead, we have his consent, which is not merely rash or amounting to a case of shifting loyalties, but is also blatantly out of character. Mirthful Benedick becomes some grim avenger on behalf of another? How so?

In fact, Benedick is the first to note how love remakes his friend, Claudio. When Claudio asks for his opinion of Hero, Benedick sprinkles cool water atop the hissing embers that verge on erupting into flames of love: "[...] methinks she's too low for high praise, too brown for a fair praise, and too little for a great praise" (I.i.126-27).

When Claudio persists, Benedick dubs Hero "Leonato's short daughter" (158). Mere jealousy? Not quite when Benedick proceeds to issue a less light-hearted warning: she will take away your Sundays; your resting periods and leisure will no longer be yours (149). Apprehensions over the lover drawing away your friend can tax your patience, but more lamentable are the hours she would take away.

Friendship is about time. The labor of friendship - acting with and acting for another, feeling with and feeling for another, thinking with and thinking for another - not only requires temporality, but is constituted by it \({ }^{5}\). Friendship partly means time shared in performing such labors. When Claudio may no longer spend it with Benedick, he is a transformed person.

Love is also capable of undoing the labor of friendship by erasing its history. Accosting her best friend, Hermia, a grieving Helena is granted some of Shakespeare's loveliest lines in A Midsummer Night's Dream:

Injurious Hermia, most ungrateful maid,
Have you conspired, have you with these contrived
To bait me with this foul derision?
Is all the counsel that we two have shared,
The sisters' vows, the hours that we have spent
When we have chid the hasty-footed time
For parting us - O , is it all forgot?
All schooldays' friendship, childhood innocence?
We, Hermia, like two artificial gods
Have with our needles created both one flower,
Both on one sampler, sitting on one cushion,
Both warbling of one song, both in one key,
As if our hands, our sides, voices, and minds
Had been incorporate. So we grew together
Like to a double cherry, seeming parted,

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5 For an early hint of an articulation of friendship as labor, see Themistius' "On Friendship", in Grayling 2013, 144. Note that "labor" points to an ongoing commitment, and cannot be reduced to singular acts of friendship, even outstanding ones. The labor of being/thinking/acting with in friendship differs from overlapping labor relating to family, in being predicated on choice.
}

But yet an union in partition,
Two lovely berries moulded on one stem; So with two seeming bodies but one heart, Two of the first, like coats in heraldry, Due but to one, and crownèd with one crest. And will you rent our ancient love asunder, To join with men in scorning your poor friend? It is not friendly, 'tis not maidenly. Our sex, as well as I, may chide you for it, Though I alone do feel the injury.
(Shakespeare 2003a, III.ii.195-219)

When heard or read within the context of the entire play, it is hard not to be taken aback by such lines - by the manner they brim with creativity and significance. Intimating a shared history of closeness and unity, such lines appear to issue from a different register than the three lovers' interchangeable love-speak which relentlessly bombards us. Hermia's betrayal erases their shared history. It voids the labor of a friendship that was.

Through clenched teeth, a disguised Portia tells her husband that his wife would not commend him for what he had just said. (The audience of The Merchant of Venice has just heard Bassanio profess that he would gladly sacrifice his wife in order to free his best friend.) Moments later, 'she' beseeches Bassanio to relinquish a ring his wife gave him. Bassanio, thereby, undergoes a second loyalty test. Antonio seconds Portia's plea. Both prove victorious in getting Bassanio to betray his wife.

Are we witnessing conflicting attachments or a full-blown battle over Bassanio's identity? The answer depends on what the Antonio-Bassanio friendship is taken to encompass. Alan Bray's work shows the extent to which, since it was blind to homoeroticism and acknowledged desire between men only when it amounted to sodomy, early modern friendship could be surprisingly inclusive. Without being perceived as homosexual, friendship could encompass far more than our contemporary disembodied notion (Bray 1982 and 2003). Cultural acceptance is not always accompanied by emotional equilibrium; conceptual vagueness may kindle erotic anxieties rather than stifle them. If
friendship did include affective and physical gestures that have later been ostracized from its province, such could certainly be felt as endangering marriage, even if the unease cannot be put into words. Portia could be interpreted as a mouthpiece for such apprehensions. Michael Radford's 2004 film of the play, with Al Pacino as Shylock, perceives Portia and Antonio to be, in this episode, putting a test not merely to the depth of Bassanio's love for his wife, but as fighting over Bassanio's sexual identity. Like all the above episodes, the question is not whether you would prefer your friend or your lover when forced to choose, but over whom you would wish to be.

Friends, it should be said, may encourage each other to fall in love: Benvolio urges Romeo to attend the Capulet feast, Antonio finances Bassanio's suit to Portia, the four youths of Love's Labour's Lost are eager to excuse each other for breaking their oaths of abstinence, and Celia or Hero are far from being impartial observers of Rosalind's (or Beatrice's) infatuations. Yet the commentaries friends produce upon the transformations they behold are laced with bitterness, cynicism, and anger. When it is suggested that the friendship would survive alongside the love - as is the case in Love's Labour's Lost - this achievement seems often connected to the friends, too, morphing into lovers.

\section*{2.}

Although often its mouthpiece, their criticism of love's daunting capacity to reshape identities does not grant superior status to Shakespearean friends. If his culture set 'perfect friendship' on a pedestal, Shakespeare unsettled it whenever he passed in its vicinity. Celia describes her friendship with Rosalind thus:

We still have slept together,
Rose at an instant, learned, played, eat together,
And wheresoe'er we went, like Juno's swans,
Still we went coupled and inseparable.
(Shakespeare 2000, I.iii.63-66)

When Rosalind attempts to convince Celia not to follow her into banishment, Celia protests that "Rosalind lacks then the love / Which teacheth thee that thou and I am one; / Shall we be sundered, shall we part, sweet girl?" (86-88).

Here is how Polyxenes describes his friendship with Leontes:

We were as twinn'd lambs that did frisk i'th'sun,
And bleat the one at th'other: what we chang'd
Was innocence for innocence: we knew not
The doctrine of ill-doing, nor dream'd
That any did. Had we pursu'd that life,
And our weak spirits ne'er been higher rear'd
With stronger blood, we should have answer'd heaven
Boldly 'not guilty' [...].
(Shakespeare 1994b, I.ii.67-74)

Bygone formative memories are conveyed by adults in these descriptions (or in Helena's lines earlier). Snapshots of times past are a foundation for the relationship. They record symbiosis, collaboration, participation in an organic unity, and erotic innocence \({ }^{6}\). Yet the idealization of friendship also amounts to its demotion when it takes the form of backpedaling into a stage of adolescence. By glamorizing it, Shakespeare also associates friendship with nostalgic longing. We tend to think of nostalgia as, in part, a fabrication. Shakespeare stops short of taking this further step. We are not encouraged to doubt the erstwhile bond. His critical point is that, while the temporality of friendship may involve reminiscing about formative scenes, recreating such unity is no longer within the reach of adults \({ }^{7}\). Few grown women will

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6 Emilia's description of her friend Flavina, who had died at the tender age of eleven (Fletcher and Shakespeare 2015, I.iii.64-78) is, likewise, nostalgic, but has also been regarded as infused by a not-so-innocent erotic streak (Stretter 2017). Emilia's reference to Flavina's breasts in those lines strikes me as alluding more to Flavina's scent, which overpowered the fragrance of flowers, than to any erotic longing on her part. A non-sexual reference to breasts has a point - the reference to a time whereby incipient breasts possessed no erotic significance is a powerful way of conveying an original state of innocence.
7 Robert Stretter describes the novelty in such an outlook in view of the tradition of perfect friendship, for which friendship is not a phase, but rather a timeless
}
persist in companionate needlework with their best friends. No grown man will hop about in the sun with his friend like two jovial lambs \({ }^{8}\).

Self-descriptions of friendship are also susceptible to being overblown. In The Two Noble Kinsmen, Arcite's attempts to comfort Palamon by summoning an idealized image of the friendship they preserve even when imprisoned, comes across as hyperbolic and shrill:

And here being thus together,
We are an endless mine to one another;
We are one another's wife, ever begetting
New births of love; we are father, friends, acquaintance,
We are, in one another, families;
I am your heir and you are mine.
(Fletcher and Shakespeare 2015, II.ii.78-83)

Friends simply cannot be all that to and for each other, and the emptiness of such talk will quickly be unmasked. Shakespeare's skepticism also extends to the recycled trope of friendship as a single soul inhabiting two bodies. Bitterly used in Sonnet 42, this image becomes a wry joke, providing a tongue-in-cheek crutch when a strained rationalizing of rejection and betrayal is called for.
achievement. He sides with accounts by Janet Adelman, Marjorie Garber, and Coppélia Kahn in which, through alternative conceptualizations, attachments to friends become a phase to be overcome on the way into adulthood. For Stretter, the point is not to criticize friendship, but rather mourn its fragility due to its proneness to be destroyed by love (Stretter 2017). In his concluding remarks to his discussion of friendship in Shakespeare, Mills, too, avers that, for Shakespeare, "the classical ideas had become a fad, and contact with actual conditions had been lost. Deriving from classical sources, it was made ultraromantic and unreal" (Mills 1937, 283-84).
8 In his discussion of friendship in The Two Noble Kinsmen, Huw Griffiths argues that it is Fletcher rather than Shakespeare who, in this play, is responsible for a more critical stance toward the idealization of friendship (Griffiths 2015). I suggest, however, that Shakespeare's descriptions of friendship convey doubt throughout all of his work.
3.

I have, so far, claimed that Shakespeare pairs friends to bring out an identity shift prompted by love. Fixated on who you once were, your friend would alert you that such a transformation has befallen. In serving such a function, the friend also sets a limitation - your past attempting to bridle your elasticity. Shakespeare's eschewal of the friendship ideal could, thus, be understood as anchored in what friends hold onto and strive to hold back.

The crux that this leads us to lies in accounting for the dearth of some more positive mode of friendship. Shakespeare is often admired for his comprehensive prism, for the ways whereby his dark strokes do not eclipse the brighter hues. Why is it, then, that friendship - a value universally cherished - is virtually banned from Shakespearean tragedies, and is either instrumentalized into a token of the protean identity of the lover, or toned down into a fading phase in the comedies? Some of Shakespeare's kings (Richard II and Macbeth) certainly bemoan their friendlessness. Shakespeare must have, accordingly, conceded that friendship is a precious value. Even if friends impose limitations on freedom, and even if adult friendship cannot be a recreation of youthful symbiosis, these are drawbacks rather than damning flaws.

Our question returns. Why would Shakespeare withhold from us a single example of friendship - not the loyalty of a subordinate, or the fleeting sympathy of some soon-to-vanish buddy, but affectionate lifelong companionship, of the kind admired by Seneca, Plutarch, or Montaigne? \({ }^{9}\) Recent work on early modern

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9 It has been argued that long-term friendship is suggested in 2 Henry \(I V\), in the relationship between Shallow and Falstaff, and that friendship is part of the relationship between Lear and Gloucester. The textual basis for such ascriptions (Lees-Jeffries 2011) strikes me as ambiguous and brief. The strongest statements of friendship in Shakespeare focus, by and large, on loyalty. Antonio and Bassanio, for example, make such statements, mostly about how they would sacrifice all for one another. Yet loyalty is hardly a sufficient condition of friendship, as it characterizes other relationships, such as filial duty or faithful service. To reduce friendship to loyalty amounts to casting it into the same category as the relations between Kent and Lear, for example, which is unsatisfactory.
}
friendship suggests that literary or dramatic descriptions should not be considered as exemplifications of abstract treatises on perfect friendships, but, rather, as tests of these (Langer 1994) \({ }^{10}\). If so, how exacting was Shakespeare's testing of the friendship ideal? Judging by the examples we have already canvassed, he virtually rejected it. Again, what could have motivated such an extreme view, if, indeed, he held it?

A possible, albeit bleak, reply is that Shakespeare regarded loneliness as our genuine predicament \({ }^{11}\). The awareness of an allpervasive mirage of affection that has imploded - an awareness surfacing in some episodes of tragic loss - may suggest that Shakespeare endorsed such perspective. Love or friendship become short-lived leaps away from the dismal realization, the surface of this grim trampoline. If they are variants of disavowal, the fraught presentation of both love and friendship in his plays is thereby explained.

It is Beckett, rather than Shakespeare, who is a more likely subscriber to such morbid view. Before pledging to it, we should explore further what may have prompted Shakespeare's skepticism, by turning to his most searching play on friendship: Timon of Athens.

\footnotetext{
10 See also the essays in Part II of Lochman, López, and Hutson 2011 (81-145). Apart from Tom MacFaul, whose explanation for the critique of perfect friendship was given above (see note 4), Lisa Jardine and Laurie Shannon have proposed two of the more interesting explanations for the refusal to wholeheartedly subscribe to the friendship ideal. Jardine argues that the perfect friendship ideal began rivaling the emerging emphasis upon companionate love, rather than the manic infatuations celebrated in the comedies. The implication, for our purposes, is that the questioning of the friendship ideal should be assessed in terms of an alternative paradigm of companionship likely to replace friendship by allocating it within the marital sphere (Jardine 1996, 11431). Shannon offers a political reason for regarding friendship gingerly: its capacity to rival political subordination (Shannon 2002).
11 For MacFaul, critics of perfect friendship sensed that the ideal was predicated upon a disavowal both of impermanent identity and one's unavoidable loneliness (MacFaul 2007, 20).
}
4.

Timon superficially reads as a play concerned with underestimating flattery. Its hero misjudges the fine line separating generosity from prodigality. Consequently, he mistakes parasites for friends. We should resist such a reading because it renders Timon a fool. Everyone else in the play, from senators to servants, understands the imprudence of showering your acquaintances with gifts, yet Timon is unaware of this mundane truism \({ }^{12}\). In no other play does Shakespeare diminish his titular hero: for all their mistakes, flaws, or rash errors, the imprudence of an Antony or the irrationality of a Lear are not the mundane underappreciation of some fact known to all. Why should he switch course with Timon?

A more rewarding reading will search for an implicit objective realized by Timon's disproportionate and indiscriminate giving. Instead of inquiring why he bestows gifts so uncritically, we ask why Timon corrupts his friends. Surely, at least some of those who end up as blood-sucking leeches could have flowered into genuine friends had Timon not opted to turn himself into a nonstop funfair. Could Timon's giving itself be an expression of a resistance to friendship? \({ }^{13}\)

From the fourth act onward, Timon spends all his time cursing Athens and hoping for humanity writ large to be annihilated. Etched upon his tombstone is an epitaph via which he continues hurling abuse long after his death:

Here lies a wretched corse, of wretched soul bereft;
Seek not my name; a plague consume you, wicked caitiffs left.

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12 Seneca's ninth epistle calls self-serving relations of such kind "fair-weather friendships"; "one who is chosen for the sake of utility will be satisfactory only so long as he is useful. Hence prosperous men are blockaded by troops of friends; but those who have failed stand amid vast loneliness, their friends fleeing from the very crisis which is to test their worth [...]. He who begins to be your friend because it pays will also cease because it pays" (Seneca 1917, 47, 49).
13 In Plutarch's source, Timon is merely a hater of others. In Cicero's De Amicitia, Timon is mentioned as a misanthrope who, for all his hatred, ironically sought to communicate such hatred to other people (Cicero 2018, 149). Shakespeare builds a motivation for Timon's aversion to others.
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> Here lie I, Timon, who alive all living men did hate;
> Pass by and curse thy fill, but pass and stay not here thy gait.
> (Shakespeare 2001, V.iv.70-73)

The epitaph has rightly confused editors. It is as if, midway in its composition, Timon had changed his mind regarding his preference to remain anonymous. Even more intriguing is Timon's need to misrepresent facts. On one reading of "all living men did hate", with Timon as the subject hating others, Timon is falsifying his pursuit of company; the Timon we were introduced to was certainly not a hater of all men. The other possible reading, in which Timon is the object of the hatred of others, is also untrue: much of his time in the wilderness is spent chasing away people who seek him out. Some of them, as Timon himself eventually confesses, do not plan to harm him, but act from genuine concern. We are invited to consider reading "Here lie I, Timon", as referring not to the posture of a corpse, but to intentional misrepresentation of the facts, to lying \({ }^{14}\).

We are also invited to regard both parts of the play as grappling with the hatred of other people. In the second part, Timon chases them away through curses; in the first, he does so through gifts. His hatred of others notwithstanding, why would Timon lie about being hated by others? His belligerent exchange with Apemantus hints at an answer. Apemantus picks out Timon's tendency to think in absolutes: "The middle of humanity thou never knewest, but the extremity of both ends" (Shakespeare 2001, IV.iii.307-8). Narcissism is the source for such all-or-nothing thinking. It peeks moments earlier, when Timon mocks Apemantus, arguing that - unlike himself - Apemantus lacks a reason for his hatred of humanity:

> TimON
> Thou art a slave, whom Fortune's tender arm With favour never clasped, but bred a dog. Hadst thou like us from our first swath proceeded The sweet degrees that this brief world affords

\footnotetext{
14 In Shakespeare's source, Plutarch, the epitaph is not ambiguous: Timon was the one who was "the hater of men" (Plutarch 1959, 301).
}

To such as may the passive drugs of it
Freely command, thou wouldst have plunged thyself
In general riot, melted down thy youth
In different beds of lust, and never learned
The icy precepts of respect, but followed
The sugar'd game before thee. But myself, Who had the world as my confectionary, The mouths, the tongues, the eyes and hearts of men
At duty, more than I could frame employment;
That numberless upon me stuck, as leaves
Do on the oak, have with one winter's brush Fell from their boughs, and left me open, bare, For every storm that blows. I to bear this, That never knew but better, is some burthen. Thy nature did commence in sufferance, time Hath made thee hard in't. Why shouldst thou hate men? They never flattered thee. What hast thou given? If thou wilt curse, thy father, that poor rag, Must be thy subject; who in spite put stuff
To some she-beggar and compounded thee
Poor rogue hereditary. Hence, be gone!
If thou hadst not been born the worst of men,
Thou hadst been a knave and flatterer.
Apemantus
Art thou proud yet?
(IV.iii.257-84).
'After all your proven foolishness, how can you remain proud?', asks a bitter Apemantus. Call it 'pride', or 'self-love', or 'narcissism'. Call it what you will, as long as you differentiate between excessive self-love and the distinct problem of being able to love only oneself. A narcissist need not be besotted with himself, merely unable to love anyone other. That is the incapability which Apemantus reveals in Timon when the latter claims exclusive rights over misanthropy. We note how Timon's chosen imagery of being abandoned, casts him as an oak, them as numerous leaves. He stands out and is unique; they are interchangeable and relational.

We think back on Timon's friendships, on how those he called 'his friends' were never particularized by him: "No porter at his
gate, / But rather one that smiles and still invites / All that pass by" (II.i.10-12). Such was how his indiscriminate generosity was described by others. He never expected anything from his friends: not emotional participation, not advice, not concern. All they were for him are faceless vessels for what he called 'his giving', props in an internal theater in which he stood apart. Timon flirted with friends; he never had any - "[A] dream of friendship" is how Flavius will call it (IV.ii.34).

To have real friends one must bridle self-love \({ }^{15}\). Shakespeare deepens here an insight which formed the basis of Plutarch's treatise on how to tell apart friends from flatterers. The latter, said Plutarch, appeal to one's self-love. Accordingly, he advised "eradicat[ing] from ourselves self-love and conceit" (Plutarch 1922, 349). The problem with Plutarch's solution is that it throws out the baby with the bathwater. Aristotle and Cicero reckoned that love of self is a precondition for friendship. Bereft of some degree of selflove, you would be incapable of loving others (Cicero 2018, 141). The cells of self-love both constitute the membrane of friendship, and have the potential to metastasize into an all-consuming incapacity to love others.

Shakespeare exposes how the intrinsic problem of self-love does not merely amount to its wordless solicitations for flattery, but rather lies in its erection of an inner wall barring a meaningful connection among people. For friendships to be not merely initiated but also cemented, one must allow for various types of value to resonate, as well as be capable of acknowledging them meaningfully. The disinclination to do so arises from the ways whereby such evaluations threaten to erode the scaffoldings of

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15 The friendship between Arcite and Palamon in The Two Noble Kinsmen collapses when they spot Emilia inquiring about a flower called narcissus. She hears the story of a self-loving youth as their friendship breaks down, implying a connection between self-love and the impossibility of sustaining friendship (see Stretter 2017). The incompatibility between narcissism and friendship was not known only to Shakespeare. Ben Jonson's epistle to Master Arthur Squib includes the following lines: "Turn him [your would be friend], and see his threads: look, if he be / Friend to himself, that would be friend to thee. / For that is first required, a man be his own. / But he that's too much that, is friend of none" (Jonson 1996, 190).
}
one's own worth. Timon is in danger of being enlightened regarding the limited scope of his generosity. Yes, he gave lavishly, but he offered only either money or the experiences or goods which money could buy. He never gave his time. He never offered his concern. Unlike Flavius, who is not even a friend but a past servant, we cannot tell if Timon would follow another human being into the wilderness.

In a lovely passage, Seneca argued that you do not have friends so that they will help you out, but in order that you may help them. Friendship is about loving others, not about being loved yourself, he claimed (Seneca 1917, 49). Flavius demonstrates this. Timon does not. Friendship based upon genuine admiration - considered by Aristotle as the highest of the three kinds of friendship demands candidly allowing oneself to be accessed by other people and the distinct merits they bring to the table (Aristotle 1934, VIII.iii-iv). If they lack such qualities, you will not admire them. If you belittle such values or are incapable of fully registering why they matter, you cannot be a friend. Acknowledging other values in this manner is necessarily humbling. This proves impossible for Timon, who comes close to comparing himself to a god (Shakespeare 2001, III.vi.59-64).

Homogenizing everyone else in order to protect his own sense of worth could be read as continuous with Timon being unmarried (there are virtually no women in this play). It is also a formative dimension of his psyche. When the supports of his self-esteem are rattled by Apemantus, Shakespeare shows us a Timon devolving into the infantile:

\section*{Timon}

Away thou issue of a mangy dog!
Choler does kill me that thou art alive;
I swound to see thee.
APEMANTUS
Would thou wouldst burst!
Timon
Away, thou tedious rogue, I am sorry I shall lose a stone by thee.
[Throws a stone]
APEMANTUS

Beast!
Timon
Slave!
Apemantus
Toad!
Timon
Rogue, rogue, rogue!
(IV.iii.362-70)

Reaching into primal matter of the self - toddlers quarrel in such ways - Apemantus unearths Timon's resistance to friendship as caused by an inability to admit competing yardsticks to evaluate worth. These will spoil Timon's stand-apartness. Show him that there are rival criteria for gauging the value of a person, and he regresses into a child, clinging to an unargued need to be superior to another.

I began by pointing out the problem of accounting for the surprising status of friendship in Shakespeare. Friends are either absent or reminisce over a transient adolescent stage of interchangeable symbiosis which one outgrows in adulthood. I have suggested that given the privileged value of friendship in his philosophical and cultural context, and given the comprehensive nature of Shakespeare's art, we may be rewarded if we pause to explore further his disinclination to subscribe to the norm. Poring over all those classical and contemporary defenses of friendship, Shakespeare may be imagined as stopping to wonder at the sheer volume of such panegyrics. After all, why praise friends so much if they are nothing but positive?

I claimed that in treating the love-friendship tension in his comedies, Shakespeare uses friends as those who remind you of the self you are abandoning. If love is the call to be made anew, to be reborn in another's gaze, friendship will be resisted because it plunges you back to the identity that was, to that which you hope to transcend. Shackles upon the fluidity of identity - that is what
friends are. Their rivalry with your lovers is merely a symptom of a greater drawback of friends.

Friends could become undesirable for another reason. When you genuinely engage in the labor of friendship - acting for and with, feeling for and with, thinking for and with, and undertaking these willfully for a substantial period of time - friends would progressively expose numerous human excellences which you yourself lack. This realization, I suggested, is precisely what Shakespeare's Timon is avoiding. Your very best qualities are but a trifle. Three or four letters out of an entire alphabet. If you are openhanded with money, your friend might prove more liberal in bestowing time. If you can be trusted for helping out in hardship, your friend might be far more capable to heighten the good times, revealing you to be indispensable for commiserating with, but unable to withstand or increase another's happiness. Some people enable us to relax and be; others inspire. Some deepen us; others are a joy to be with. The more you discover others and what they excel at, the humbler you become.

Humility tends to be lauded. We are urged to avoid being smitten with ourselves. Given time and opportunity, you will discover that your very best is inferior to another's. Yet 'humility', in Timon's context, is an altogether different challenge, whose overcoming is not some preparatory stage in one's perfectibility. 'Humility' may mean a crisis of self-value repeatedly enacted upon fully registering a friend's unique qualities. Admitting the superiority of others in relation to your own excellence is not the issue. Timon does not learn that someone is more generous than him with their money. The crisis is, rather, rooted in discovering competing and valid yardsticks for excellence - ones which you have never considered applying to yourself.

Friendship based upon genuine appreciation among adults entails volunteering to be exposed to such assaults. Choice is a crucial component. Unlike relations of kin or of professional subordination, in which you are meant to remain a daughter or a monarch's knight even when the parent or king has altogether transformed or lost power, friends must be re-chosen. Yet such a choice is accompanied by repeated encounters with your
shortcomings. Shakespeare may not have categorically ruled out this possibility. He could have merely believed that genuine friendship is rarer than the rhetoric of affection would have us believe.

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\section*{Selected Publications in Shakespeare Studies}

\section*{Bigliazzi, Silvia, Julius Caesar 1935: Shakespeare and Censorship in Fascist Italy, Skenè Texts 3, Verona, Skenè Theatre and Drama Studies, 2019, 405 pp.}

The 2017 Shakespeare in the Park production of Julius Caesar in New York featured Gregg Henry as a paunchy blonde-maned Caesar in a red tie, accompanied by a svelte Calphurnia with a Slovenian accent. Some were amused, but most stopped laughing in Act III when the senators brutally assassinated the Trumpian dictator. In the resulting uproar, corporate sponsors withdrew funding while defenders argued for artistic freedom and pointed out that Shakespeare's play goes on to condemn violence, to show that the assassination of a tyrant only brings about other forms of tyranny. Some cited as precedent Orson Welles' important 1937 production, Caesar: Death of a Dictator, also staged in New York but at the Mercury Theater. Acting Brutus himself, Welles cast as Caesar Joseph Holland, who bore a striking resemblance to Benito Mussolini. The stage evoked the setting of Nazi rallies at Nuremburg, and Caesar's jack-booted followers greeted each other with the Sieg Heil! salute. Welles, however, did not settle for a simple one-sided reading of the play. Though cutting the text ruthlessly, he expanded the murder of Cinna the Poet into a chilling indictment of mob rule and a graphic demonstration that Fascism lies within ordinary people as well as dictators.

Because Welles' Julius Caesar, for many English speakers at least, still stands as a pre-eminent example of a modern political production of the play, Silvia Bigliazzi's discovery of a very different, almost exactly contemporary production is especially
welcome. Based on documents in the Archivio Centrale dello Stato in Rome, this monograph recovers one extraordinary political production, the 1935 Giulio Cesare, and places it in the larger context of Fascist literary appropriation and mythography. The book consists of an introduction, the 1935 censored script in Italian and English translation, and five appendices of documents, also with English translation: 1) the 1935 Giulio Cesare Acting Text; 2) the 1925 Introduction of Raffaello Piccoli (the translator) and Contemporary Views; 3) Selections from Memorie Inutili (1952) by Leopoldo Zurlo (the theatrical Censor); 4) Documents pertaining to the 1935 Giulio Cesare production; and 5) Documents related to productions of The Merchant of Venice 1934-1939.

This last appendix provides a fascinating insight into how the staging of a play can serve the purposes of polemical appropriation and instantiate sinister myths of inferiority and supremacy. Discovering the loss of his daughter and ducats, Shylock slams doors, overthrows chairs, laments, "con suoni selvaggiamente inarticolati" ("with wild, inarticulate sounds"), foams at the mouth, and finally falls to the ground, "con un ruggito di belva ferito a morte" ("with a roar as of an animal wounded to death"). His final bestial collapse follows the tearing of his prayer shawl, "alla maniera degli Ebrei secondo il vecchio rito del dolore" ("according to the Jewish manner in the old rite of grief", pp. 398-99). The staging accentuates the portrayal of Shylock as stereotypical greedy moneylender and the identification of Jews and animals.

After Tito Vezio's portrayal of Julius Caesar as a prefiguration of Benito Mussolini (Le due marce su Roma, 1923), it was practically inevitable that Shakespeare himself, particularly his Julius Caesar, would be enlisted in the service of Fascist mythography. The story of the 1935 Giulio Cesare begins with its unusual commissioning by the OND (Opera Nazionale del Dopolavoro, "National Workers' Recreational Club"), the very agency that censored and banned plays. It continues in the recollections of the Censor Leopoldo Zurlo (Appendix 3). Confessing initial uneasiness about Caesarian parallels to Mussolini and the 1935 production, Zurlo advanced a politically correct interpretation of the "intimo significato" ("intimate meaning", pp. 374-75) of the play: Cassius is a vile, scheming conspirator; Brutus kills the true hero of the play, Caesar,
and ends in suicide, leaving the Republic to corrupt Antony and calculating Octavius. Shakespeare here ultimately shows" "l'inutilità del delitto e la sua condanna, anche se compiuto da un uomo virtuoso" ("the uselessness of murder and its condemnation even if carried out by a virtuous man", pp. 374-75).

Along with these ancillary materials, Silvia Bigliazzi's meticulous edition and commentary presents for new consideration the two surviving source texts of the 1935 production: the marked-up copy of Piccoli's 1925 translation up through IV.ii; the eleven-page "copioncino", or short script, that replaces the remaining forty pages of translation (IV.iii to the end). She astutely notes the various additions and omissions that adapt the ancient story to contemporary ideological agendas. The 1935 Brutus, for example, announces to the people, "anno ammazzato Cesare!" ("They have killed Caesar!", pp. 170), thus evading responsibility and showing "political deviousness" (p. 23). A subtle change in phrasing has Brutus blame Cassius not Caesar for supporting robbers (p. 21). And the script generally excises the word "tyrant" and its cognates, which "clearly sat uncomfortably in a play aimed at celebrating Caesar-Mussolini" (p. 21). Bigliazzi notes several such excisions (I.iii.90; I.iii.101, pp. 21-22), to which we can add others (I.iii.97, II.iv.118, V.iv.5).

Silvia Bigliazzi well observes the significant patterns of alteration regarding Caesar himself, whom Shakespeare had portrayed ambivalently, and the climactic murder scene, especially difficult to stage since "Mussolini had himself been the target of several assassination attempts between 1925 and 1931" (p. 29). The Censor diminishes and erases "the corporeality of Caesar alongside some 'dangerous' aspects of his character" (p.30). "The removal of all references to Caesar's death, especially when evoked vividly with mention of hands, blood, and details of the action, was part of that strategy" (pp. 30-31). Gone too are the mentions of Caesar's swimming contest in the Tiber and near drowning, the epileptic fit, the deaf ear, the plucking open of his doublet to the crowd. The revised text sharply curtails the ritualistic elements of the murder (including the gory handwashing) so that it might look "like the assassination of a martyr whose body was to remain untouched by human hands" (p. 40). After all, the 1935 play insisted, Caesar died but Caesarism eventually triumphed, incarnate in the new ruler
and future empire. "History was to progress and be imbued with Caesar's spirit through Caesar's death, not through his massacre" (p. 34).

Furnished with revealing illustrations (though readers could have used a comprehensive list in the prefatory materials), this monograph adds an important, hitherto unknown, chapter to the complicated history of Shakespearean production and appropriation. This history, as John Ripley ('Julius Caesar' on Stage in England and America, 1599-1973, Cambridge, Cambridge University Press, 1980) and Andrew James Hartley (Julius Caesar: Shakespeare in Performance, Manchester, Manchester University Press, 2014) have well demonstrated, extends backwards to the first staging of Julius Caesar in 1599, through the Whiggish anti-royalist Dryden-Davenant adaptation (1719), Edwin Booth's sentimental and ill-fated 1864 revival, and the Welles 1937 production, up to many fascinating modern exemplars - the Italian Cesare deve morire (film, 2012) directed by the Taviani brothers in an Italian prison, for example. The 1935 Giulio Cesare, in fact, has an interesting analogue in Jürgen Fehling's 1940 German production of Shakespeare's play. Though himself a vehement anti-Nazi, Fehling enlarged Caesar into a mythic figure and portrayed his fall as a historical disaster. How different Nelson Mandela's reading in 1944, when he and his colleagues who formed the Youth League of the ANC adopted as their motto Cassius' "The fault, dear Brutus, is not in our stars / But in ourselves that we are underlings" (I.iii.140-41). Discussing the play as a school text, Mandela's biographer, Anthony Sampson, observed that Africans read Julius Caesar "as a kind of textbook for revolution. [But] in South Africa the play had a deeper resonance, for it vividly described how an oppressed people can realise their potential against tyranny, and escape from their sense of inferiority" (quoted in Hartley, 2014, p. 183). Yaël Farber's 2001 SeZaR, produced for the Grahamstown National Festival of the Arts, resisted specific and local application but suggested to viewers a range of tragic events in recent African history. Retaining some English, the script incorporated African dance, music, and rituals and also resounded with African languages - Tswana, Pedi, and Zulu (Hartley, 2014, pp. 187-92). In accents yet unknown, indeed.

Julius Caesar 1935 belongs to this grand and complicated tradition of production and we are grateful to Silvia Bigliazzi for this discovery and careful representation. This account of the production also belongs to one of Silvia Bigliazzi's larger projects, the exploration of Shakespeare's intervention in Italian history and culture, evident most recently in her Shakespeare and Crisis: One Hundred Years of Italian Narratives (Amsterdam and Philadelphia, John Benjamins Publishing Company, 2020). For this and her other substantial contributions, notably her leadership as co-editor of the series "Global Shakespeare Inverted" and as director of the Skenè Research Centre, which sponsors an annual conference and journal, Shakespeareans everywhere are in her debt.

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\section*{Blank, Paula, Shakesplish: How We Read Shakespeare's Language, Stanford, Stanford University Press, 2018, 213 pp.}

It is a matter of great regret for the global Shakespearean community that Paula Blank's latest book, Shakesplish: How We Read Shakespeare's Language, is also to be her last. Over the course of her career dedicated to early modern literature and the manifold properties of its language, Blank was Margaret L. Hamilton Professor of English at the College of William and Mary, and the author of two important books, Shakespeare and the Mismeasure of Renaissance Man (2006) and Broken English: Dialects and the Politics of Language in Renaissance Writings (1996), a key text for anyone interested in early modern English.

After her unexpected passing in 2016, her colleagues Elizabeth Barnes, Erin Minear and Erin Webster completed the manuscript she had left behind for her third book, working with Stanford University Press within the Square One series edited by Paul A. Kottman, to bring to light this learned, but approachable and thoroughly enjoyable volume which aims to "speak to an audience beyond the academy" (Barnes, p. vii), never forgetting, however, the academic point of view (where 'academia' is intended in the best, pedagogically-conscious sense). We must be grateful to them for this labour of love, for we are now able to read a book that completely and unapologetically legitimizes our modern misreadings and misunderstandings of Shakespeare's language,
which, Blank shows, can be interesting and productive of meaning even though historically 'wrong'. The distinction is crucial, for what Blank is really talking about here, in delving into the reasons why Shakespeare's language still matters to us so much, is not Shakespeare but ourselves - thus shedding light onto the radical shifts in aesthetic categories that have led us to consider his language as 'strange' (on the "linguistic, semantic, affective, and cognitive" aspects of "our understanding of Shakespeare's strangeness" see Paul A. Kottman's Foreword, pp. ix-x).

Blank had first engaged with some of these questions in a provocative article published a few years back in a collection edited by Michael Saenger (Interlinguicity, Internationality and Shakespeare, Montreal and Kingston, Mc-Gill-Queen's University Press, 2014), which she opened with the question "Are Shakespeare's poems and plays written in English?" ("Introducing 'Intrelinguistics': Shakespeare and Early/Modern English", pp. 138-56). Readers might initially scoff at the question, but Blank persuasively showed how reading Shakespeare today requires skills that she defined as translational, integrating Jakobson's well-known model based on three types of translation (intralingual, interlingual, and intersemiotic) with a fourth category, which she named "intrelingual". The chosen label was perhaps not the most effective, but the concept is clear: moving from one period in the history of a language to another is essentially a form of translation and should be recognized as such, pace David Crystal - or not: I am not sure, in fact, that Blank's argument, in that article and in this book, is so radically opposed to the one the eminent linguist expressed on what he called the "translation myth" in his seminal book Think On My Words: Exploring Shakespeare's Language (Cambridge, Cambridge University Press, 2008). Blank recognizes the worth in Crystal's claim that about 95\% of Shakespeare's English is modern English, and never falls into the trap of believing that Shakespeare spoke a different language; like Crystal, she upholds the need to probe into the language to tease out what he calls "difficulty of thought" (p. 11). They also seem to share their ultimate goal pursued with fiery passion in both books - which is to enhance the appreciation of Shakespeare's language in modern audiences. Where they diverge is the way they go about the task, for while

Crystal advocates for bringing us closer to Shakespeare ("Rather than modernize Shakespeare, [...] our effort should be devoted to making ourselves more fluent in 'Shakespearean'", p. 15), Blank is interested in bringing Shakespeare closer to us: "explor[ing] how we hear, understand, fail to understand, are amused by, disturbed by, bored by, moved by, and challenged by [Shakespeare's language] today, specifically as speakers of Modern American English" (p. xi).

The ability of Blank's style to draw readers in is such that I had no difficulty at all in identifying in her 'we', and with her position, despite not being American; I don't think too many of my Italian students, millennials and post-millennials raised on a steady diet of Netflix, YouTube and other forms of social media heavily dominated by standard American English, would have to stretch their imaginations too far to identify with that 'we', either. Things might perhaps be different for native English speakers in the UK, though Susan Bassnett's well-known complaint about having to sit through actors' overcompensative antics in bad Shakespearean productions in which, she argues, they probably could not fully comprehend the language, attests to a shift there too (https://www.independent.co.uk/news/education/education-news/shakespeare-s-danger-we-have-act-now-avoid-great-
tragedy-9159195.html). The point that Blank makes is that while it remains necessary and useful to historicize Shakespeare's language in evaluating its intended effects, trying to understand the effect it has on 'us' four hundred years later is a perfectly valid endeavour. More than in 'Shakespearean', she is thus interested in reconstructing what she calls 'Shakesplish': an "early/modern interlanguage" (p.15), a specific linguistic variety that exists neither in Shakespeare's time nor fully in ours, but in the friction between his language and our understanding of it, errors and all.

Drawing on translation theory, second-language acquisition theory, and performance studies, Blank sets out to study four effects she believes modern day readers/listeners of Shakespeare's language tend to focus on, and sometimes cling to: the idea that it is 'beautiful', 'sexy', 'funny' and 'smart'. To each of these effects she devotes a chapter, after a preliminary chapter on "Shakespeare in Modern English" which outlines and recaps the debate on Shakespeare's language from Abbott's early work onwards. Blank
is careful to analyze each of the chosen effects not only in terms of modern understanding, but also from a formal point of view, combining her critical insights with precise information on the rhetorical figures and patterns Shakespeare used. In speaking of beauty (chapter two), she points out the limits of radical historicization when dealing with aesthetic effects, for either we accept that our standards of beauty have changed, in which case we will never be able to find beautiful everything that Shakespeare's contemporaries did, or we must assume that aesthetic standards are timeless. "Our best chance", she concludes, is to consider not simply his texts and their contexts, but also "the moment we make contact with his texts, the moment of our interlinguistic participation" (p.32), accepting, and embracing, the interference of our contemporary language. In considering all four of the chosen effects, Blank exposes the difference between what we feel and what we feel we ought to feel - the idea, for example, that long speeches must automatically be beautiful and important (while Johnson could complain, free of any sentiments of guilt, about the length of Henry V's St Crispin's Day speech). Or the idea that we find old words beautiful precisely because they are old: here the concept of early/modern friction explains the paradox of modernday readers and audiences experiencing the Elizabethan pronoun system in a radically different way than it would have been in its time, so that "thee" and "thou" are felt as anything but familiar, and thus more beautiful and literary. Similarly, elliptic structures, such as modal verb + infinitive forms (like for example "I must to Coventry", in Richard II), which would not have been considered lacking from a syntactical point of view in early modern English, are felt today as 'broken', imperfect, strange, and thus poetic. The poetry, Blank argues, in cases such as these clearly lies not in the original but in the space, or interference, between Shakespeare's language and ours.

Analogous considerations are given in the following chapters (three to five). In assessing Shakespeare's language as 'sexy', Blank shows how modern readers/audiences are oblivious to the 'real' meaning of Shakespeare's bawdy language half the time, but still enjoy the sex jokes they can grasp, however imprecisely; at the same time, they are often convinced that Shakespeare was
somehow more euphemistic in his use of sexual language, simply because they do not know the original, often far from inoffensive, meaning of a number of now neutral words. Conversely, other words which had no sexual content in Shakespeare's time now produce inevitable interferences and unintended double entendres. Blank is never dismissive of modern readers/audiences' lack of information or knowledge on early modern English and fills in the gaps with countless examples taken from early modern dictionaries and lexicons such as the work of John Florio. But she is also very clear in revealing the ambivalence of our feelings: "we prefer sex in Shakespeare to be hidden, so that we can find it out for ourselves" (p. 98). In chapter four, dedicated to the idea of 'funniness' in Shakespeare, we are shown how in this case too, obscurity of language can enhance rather than conceal the effect: when the "saucy Page" is shouting insults at Mistress Quickly, many of the words are frankly incomprehensible today ("rampallion", "fustilarian"), but in this case, once we have correctly identified the framework of the insult, it is precisely the novelty of the words that has us laughing. At the same time, Blank gives us permission to admit "that Shakespeare's puns are not very funny anymore, for all our will to enjoy them" (p. 111) - something Johnson was again not embarrassed to assert - unless one counts the pleasure of being able to correctly identify and explain the polysemy involved. Blank here seems to contend that this is a specifically academic pleasure, closer to satisfaction than to actual enjoyment, but perhaps this really is a matter of personal sensibilities. Whatever the case may be, I find her insight that, in recognizing the difficulty of Shakespeare's language, we like the feeling of being "in the know", and therefore enjoy even the jokes we have to work at to understand, quite profound. This idea connects to chapter five, in which the final effect, 'smart', is explored, since so much of our enjoyment is linked to the ability to understand Shakespeare's wit (or "intelligence effects", in Blank's words). Here a fruitful distinction is made between rhetoric and logic, both structuring principles of discourse that a good part of the Elizabethan audience would have been trained to recognize in ways that may be less evident to us today; so that Hamlet's "To be or not to be" soliloquy is re-evaluated by Blank as an example of "disjunctive proposition", in which a clear fallacy mars the logic, since only two propositions are given - "life
is brutal for everyone, and [...] death is always to be feared. There is no middle ground" (pp. 144-45). But the general effect of Hamlet's speech "sounds" philosophical to our ears, and thus comes across as extremely rational, explaining Hamlet's modern reputation as a philosopher and generally intelligent character (T. S. Eliot, of course, was famously not fooled in this respect, whatever we want to make of his general judgement on Hamlet as an artistic feat).

Blank also treats the vexed question of Shakespeare's linguistic originality in this chapter dedicated to effects of intelligence. She interprets originality here in terms of neologisms, a slightly narrow view, perhaps, which leads to one small flaw in her argument at this point, in which, although in more cautious terms, she seems to uphold the widespread opinion that Shakespeare invented hundreds of words, based on occurrences listed in the Oxford English Dictionary. Jonathan Hope, among others, has argued strongly and convincingly against this view, showing how the OED cannot be taken as final proof of an occurrence being the first one, since its compilers were heavily biased towards finding authoritative examples in Shakespeare and probably ignored earlier occurrences that are now being discovered. In an extremely cogent article published in our journal ("Who Invented 'Gloomy'? Lies People Want to Believe about Shakespeare", Memoria di Shakespeare 3, "The Shape of a Language", ed. I. Plescia, 2016, pp. 21-45), Hope gives examples of how one can trace and ante-date words that the public opinion has traditionally assigned to Shakespeare, coming to the drastic conclusion that "Shakespeare did not invent words. Not any. Not one that we have been able to find so far". Blank could not, of course, have read that article, so it would be unfair to judge her assertions with the benefit of hindsight, but I think she would not mind me pointing out that her conclusion, based on Hope's earlier work, that "until we actually discover alternative sources for words currently attributed to Shakespeare, [his] argument remains fallacious" (p. 148) has in the meantime been disproven, since we can now access and search tens of thousands of early modern books in digital repositories, which are revealing a surprising number of ante-datings with respect to the OED definitions (the dictionary has actually issued a call for
readers to contribute their own findings, not limited to Shakespearean words).

This small caveat, of course, takes nothing away from the importance of Paula Blank's final book. First of all, because as she herself explains, Hope's myth-busting argument is actually telling of what we want to believe about Shakespeare's language - yet another instance of Shakesplish, in fact. And secondly, because the bulk of her intuitions and arguments on Shakespeare's language does not rest on this idea of neologizing creativity, which is only tangentially explored. In a final chapter, Blank delves into the Shakespearean idiomatic expressions that we have come to accept and have made our own, no longer considering "Shakespeare in Modern English", as in the opening section, but "Shakespeare as Modern English" (emphasis mine). The change is subtle, but significant, and if we cannot help sensing the 'unfinishedness' of this final chapter, its need for a conclusion that Blank was not able to write, we can find a good degree of satisfaction in her acknowledgment of a "shared Modern American desire: wanting Shakespeare to have invented as much of our language as possible. We love it when we think we've been talking Shakespeare all our lives, just as he's been talking us" (p. 191). This statement naturally also has interesting implications when thinking about the construction of ideas of cultural and linguistic legitimacy in America - and this seems like a fitting place to announce that the next issue of our journal, to be published in 2021, will be dedicated to "Shakespeare in the American Imagination" (ed. Maria DiBattista). We owe Paula Blank much thanks for bequeathing to us a book that I would not hesitate to describe as possessing the same traits she has analyzed for us - a book that is 'beautiful', 'funny', 'smart', and yes, even 'sexy': seductive, that is, in the elegant and articulate way in which it helps reveal to us our innermost desires about what Shakespeare's language should be.

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Culpeper, Jonathan and Archer, Dawn, eds, "Special Issue: Shakespeare's Language: Styles and Meaning via the Computer", Language and Literature: International Journal of Stylistics, vol. 29, no. 3, August 2020, pp. 191-351.

The digital revolution, digital databases and text analysis tools, that Shakespearean studies have only recently accepted to be put at the forefront of the future research and debate, provide radically improved ways to understand Shakespeare, both within the Shakespeare canon, and in the wider context of early modern literary culture. Editors and translators have long sought to understand Shakespeare through contextualisation: words and phrases have been glossed using examples from other texts, and critical arguments have been constructed around concepts that seem to be highly frequent in particular plays. Memoria di Shakespeare 7, "Stylometry", was about to be published when we received the last 2020 issue of Language and Literature: International Journal of Stylistics, unsurprisingly devoted to Shakespeare's language in connection with and through the lens of corpus methodologies. We cannot miss such a wonderful opportunity to celebrate a common effort and a healthy attempt to make "our understanding of Shakespeare's language usage [grow] exponentially" (p. 200). "O brave new world, to have such corpora in it!" (p. 347), opens David Crystal in his "Afterword" to the special issue, congratulating the authors on an enterprise that joins a sociolinguistic and a pragmatic perspective in addressing two aspects of Shakespearean language study, structure and use, traditionally considered separately. Corpus linguistics and digital humanities, areas that have a foot in both linguistics and literary studies, have already given important contributions and produced in the early 1990s the Helsinki Corpus of English Texts, the Corpus of English Dialogues, the Early English Books Online (EEBO), the Variant Detector (VARD). However, one of the aims of Language and Literature special issue is to introduce the concept and preliminary research results of the Encyclopedia of Shakespeare's Language (20162019; https://wp.lancs.ac.uk/shakespearelang), the Arts and Humanities Research Council-funded project, designed to fill the gap of a thorough study of the methods used by linguists to work
with corpora (and, in so doing, to "bring scholarship on Shakespeare's language fully into the \(21^{\text {st }}\) century"! [p. 194]). In an illuminating interview for Memoria di Shakespeare 3, "The Shape of a Language" (ed. I. Plescia, 2016), Jonathan Culpeper had anticipated that
> [t]he guiding principle [of the Encyclopedia] will not be etymology or editorial intuition but frequency. It needs to be stressed that what is proposed is not a traditional concordance of Shakespeare. Matters of frequency are used to reveal patterns of meaning and usage; they are not an end in themselves. Internal comparisons will reveal how Shakespeare's language dynamically varies across his works. For example, it will reveal whether certain words, meanings, structures, etc. are peculiar to tragedies, comedies or histories, to certain social groups (e.g. men/women) and to specific periods and sites of composition/performance. External comparisons with the language of Shakespeare's contemporaries will form an even more significant and innovative part of the research. (p. 4)

The six articles in Language and Literature special issue are all corpus-based studies, hence showing both the methods used for bringing meaning to light and the theoretical approach behind the method adopted. Four articles draw upon statistical measures and deal with Shakespeare's style and his "representations of nationality, gender and deception" (p. 197) through the analysis of his grammar and lexicon (J. Culpeper and A. Findlay, "National Identities in the Context of Shakespeare's Henry V: Exploring Contemporary Understanding through Collocations"; S. Murphy, D. Archer and J. Demmen, "Mapping the Links between Gender, Status and Genre in Shakespeare's Plays"; D. Archer and M. Gillings, "Depictions of Deception: A Corpus-Based Analysis of Five Shakespearean Characters"; A. Hardie and I. van Dorst, "A Survey of Grammatical Variability in Early Modern English Drama"). The fifth article (S. Murphy, J. Culpeper, M. Gillings and M. Pace-Sigge, "What Do Students Find Difficult When They Read Shakespeare? Problems and Solutions") introduces a pedagogical perspective and addresses some problems with the help of corpora. Finally, the sixth article (A. Findlay, "Epilogues and Last Words in Shakespeare: Exploring Patterns in a Small Corpus") is more literary-oriented and focusses upon "the last words of plays and in
particular epilogues, a specific kind of paratext" (p. 199), exploring the contribution of corpus methods, even in special cases in which linguistic or stylistic phenomena do not follow a regular pattern. As Culpeper and Archer argue in their introduction: "taken as a whole, the six articles are designed to represent some of the broad array of the opportunities afforded by the new corpus resources created as part of the ESL [Encyclopedia of Shakespeare's Language] project" (p. 199). The digital world has both strengths and weaknesses, but it is capable to redefine scholarship and practice. The collection edited for Language and Literature provides both models for further research and tools for the assessment of the models themselves. Due to the unique cultural capital of his works, Shakespeare's language can sit at the forefront in the use of corpus methodologies: they can radically improve our contextual glossing and translating of Shakespeare. An awareness of statistical text analysis can refine and improve traditional literary criticism and ways of understanding.

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\section*{Del Villano, Bianca, Using the Devil with Courtesy: Shakespeare and the Language of (Im)Politeness, Bern, Peter Lang, 2018, 196 pp.}

It is a fact that several paradigm shifts occurred in language studies in the closing decades of the twentieth century and in the early years of the current century: new directions were explored and new perspectives embraced as sociolinguistics, cognitive linguistics, pragmatics, and discourse analysis took hold, shifting the boundaries of stylistics and linguistics alike. As occurred in other paradigms, the approach shifted from regarding language as a synchronic, static, and homogenous system to a diachronic, social, and dynamic entity. It is this interest in the diachronic dimension that eventually gave rise to studies into historical stylistics, or rather, a new historical stylistics, and, as a sister discipline, into historical pragmatics. Both fields of study have adapted methods and devices developed through stylistics and pragmatics to work on texts from the past (literary and otherwise) and on language use and variation in past contexts, in order to understand how meaning is made and provide new materials and evidence to linguists,
historical linguists, and language historians. However, despite isolated areas of obvious transfer, today it is generally true that literary studies and linguistics do not significantly communicate with one another, even in Shakespeare studies. While Shakespeare philology has a long research tradition, linguistic contributions to the study of Shakespeare's English are much more recent and less numerous, and the ones within the scope of historical pragmatics are still relatively new, although increasingly frequent. Terms of address, vocative constructions, discourse markers, speech acts, politeness and impoliteness strategies are the most relevant areas of pragmatics connected to Shakespeare's English and dramatic dialogues.

The book reviewed here falls within these 'happy few' examples and combines linguistics and literary studies, reading Shakespeare's dialogues through the lens of pragmatics, focussing in particular on politeness and impoliteness theory.

The title of the volume, Using the Devil with Courtesy: Shakespeare and the Language of (Im)Politeness, paraphrases from Twelfth Night ("I'm one of those gentle ones / that will use the devil himself with courtesy", IV.ii.32-33) and introduces the issue of the connection between politeness strategies and the concept of courtesy in the early modern period, the research hypothesis being that "subjectivity, language and culture in the Renaissance are interconnected through courtesy" (p. 17). Structured in four sections, the first and the second part of the volume engage with theoretical and methodological issues and offer a thorough overview of the concepts related to Brown and Levinson's positive and negative face, and the discursive strategies activated by politeness. The accurate outline is completed and updated by presenting Jonathan Culpeper's theory of impoliteness which occupies a special place in Del Villano's approach to the casestudies analysed in the second part of the volume. The second chapter focusses on the relationship between contemporary linguistic theories and "a historical era such as the early modern period, in which codes of politeness may have been differently expressed" (p. 52), by providing insights into the concept of subjectivity in the Renaissance context. The author resorts to new historicist tenets to outline the complex picture of the emergence or denial of subjectivity and, as is well known, in this intellectual
framework, self-fashioning and manners are intended as the source of identity for an individual who coincides with the figure of the courtier. In this context, "courtesy soon came to serve a dual purpose: on the one hand, it was construed as an inner quality inherently characterising the aristocrat whilst, on the other, it concerned exterior behaviour and was seen as something that could be acquired along with the use of proper manners, such as polite formulae for greetings or a courtly bearing" (p.75).

Having established the theoretical and conceptual dimensions of Renaissance English subjectivity in connection with the cultural meaning of courtesy, chapter three and four turn to the analysis of two plays, Hamlet and The Taming of the Shrew, and this provides an interesting micro-level complement to the preceding discussion. Del Villano embraces Brown and Levinson's traditional model and current studies on diachronic impoliteness "in the conviction that a combined method can on the one hand ensure control over and precision in the identification of (im)polite strategies and markers using well-tested tools to measure the linguistic expressions found in the texts; on the other, the discursive approach can open up the interpretation of data to more markedly interdisciplinary dimensions" (p. 82). Honorific titles, address pronouns, discourse markers are crucial indicators in assessing a distinction between "discernment politeness, understood as formulaic conventional courtesy, and strategic politeness, understood as a means of persuading others, causing offence and minimising possible imposition by and on others" (p. 84).

The object of stylistic analysis is to account for, or dispute, previously established assessments and interpretations, rather than produce new ones, and the pragmalinguistic investigation conducted by Del Villano confirms the paramount role played by 'courtesy' in the early modern society as a necessary requisite in the context of self-reinvention and self-fashioning that marked the formation of the individual's subjectivity. Moreover, on the linguistic level of fictional representation, (im)politeness strategies testify to the existence of a sense of inwardness and a strategic negotiation both of subjectivity and subjection which can be demonstrated only through linguistic performativity. Hamlet's celebrated rhetoric of detachment between word and meaning is
translated into an "off-record strategy [that] goes beyond irony, playing on the arbitrariness of the signified/signifier link. [...] Hamlet's off-recordness [...] can be described as a (dramatically ironic and metonymical) torsion of language that breaks the analogical link between words and things" (p. 175). Katherina, like Hamlet, reacts to the oppression of the world around her, but her verbal choices are different, and her strategies are marked by aggression in the first part of the play and mock politeness in the final scenes. If Hamlet operates a "torsion of language", Katherina relies on a sort of "inversion, a typical Carnivalesque motif, in which the order of constatives and performatives, of what is 'real' life and what is theatre, are reversed" (p. 176).

All in all, Using the Devil with Courtesy is a good example of how a structural approach may be fruitfully integrated with strong hermeneutic overtones and Bianca Del Villano brilliantly confirms the shared, fundamental premises that still lie in a disciplined approach to the text, in the examination of data by means of verifiable and replicable procedures, and in addressing the construction of meaning as the principal task of textual interpretation. Her intelligent book at times risks exposing itself to traditional criticism against the use of a heavy apparatus of technical terms and acronyms which asks the reader to keep a constant eye on a glossary, necessary to understand the terms of the discussion. However, such style, at times didactic and explicitly concerned with involving the reader into methodological choices, is part and parcel of the rigorous approach of a linguistic analysis, and can be read as the fair price to be paid in order to counterbalance countless pieces of literary criticism in which subjectivity and impressionism guided the act of interpretation. Let me end with a remark made by Roman Jakobson, who throughout his career advocated for a collaboration between linguistics and literary criticism: "A linguist deaf to the poetic function of language and a literary scholar [...] unconversant with linguistic methods are equally flagrant anachronisms". I think that the book reviewed here contributes in its own way to synchronising the two parts and offers a virtuous example of collaboration.

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\section*{Guardamagna, Daniela, Thomas Middleton, drammaturgo giacomiano. Il canone ritrovato, Roma, Carocci, 2018, pp. 276.}

Thomas Middleton was one of the most prolific writers of the Elizabethan-Jacobean period. His remarkable career was a varied one. He wrote, alone or in collaboration with other major writers of the time (Shakespeare, Webster, Dekker, Ford, Rowley), in a huge variety of genres: plays, pamphlets, poetry, pageants, masques, epigrams, prose satires, Biblical and political commentaries. As a playwright, his range is wide - he swung from city comedies to tragicomedies, from histories to tragedies - and his plays, written for different companies, were successfully performed in various London theatres.

Middleton was an established and popular writer during his lifetime, yet it was not until the nineteenth century that his works were published in two collected (though incomplete) critical editions by Alexander Dyce (1840) and by Arthur H. Bullen (1885-87), and, in the following century, only a few scholarly monographs were devoted to his theatrical production.

In the last decades, however, the old canon of Thomas Middleton has been deeply modified by attribution studies, especially after the issue of what has been defined as "Middleton's First Folio" (Thomas Middleton: The Collected Works and Thomas Middleton and Early Modern Textual Culture: A Companion to the Collected Works, general eds Gary Taylor and John Lavagnino, Oxford, Oxford University Press, 2007), and, in the years that have intervened since the publication of this new unified edition, the writer's prolific career has come into focus.

In this context of current scholarship, Daniela Guardamagna's Thomas Middleton, drammaturgo giacomiano. Il canone ritrovato is the first Italian comprehensive study on Middleton's dramas.

There are Italian translations and critical editions of some of Middleton's major plays - The Changeling (translated under various titles: I dissennati; Il lunatico; I lunatici), A Trick to Catch the Old One (Una trappola per il vecchio), A Game at Chess (Partita a scacchi), Women, Beware Women (Donne guardatevi dalle donne), The Roaring Girl (Una maschiaccia a Londra), A Chaste Maid in Cheapside (La casta vergine del Cheapside), A Mad World, My Masters (Mondo matto, miei
signori), The Revenger's Tragedy (La tragedia del vendicatore) - and a memorable production of The Changeling (I lunatici) under the direction of Luca Ronconi was performed in the courtyard of the Palazzo Ducale in Urbino on August 12, 1966. But the two previous Italian scholarly monographs date back to the end of the 1970s and the beginning of 1980s (Mary Corsani, Il linguaggio teatrale di Thomas Middleton, Genova, Il melangolo, 1979, and Franco Marenco, ed., Thomas Middleton e il teatro barocco in Inghilterra, Genova, Il melangolo, 1983).

The subtitle of Daniela Guardamagna's volume (Il canone ritrovato) makes it clear that her investigation is based on the new perspectives due to the recent reassessment of the Middleton canon - at the beginning of the book we find a very useful table in which the recent revision of the dramatic canon is set out (pp. 26-27).

Daniela Guardamagna follows current scholarship by including, for example, A Yorkshire Tragedy and The Revenger's Tragedy while excluding Blurt Master Constable, but her book is not simply a presentation, to Italian readers, of the salient arguments and instances that provided a basis for the reinterpretation of the canon of Middleton's plays. She concentrates on the vast body of the Jacobean playwright's work with a wide range of scientific evidence and theory, reaching important conclusions which are of interest to general readers acquainted with Elizabethan-Jacobean drama as well as to specialists.

The book is divided into two main sections (chapters one to four and five to nine, respectively).

The first part starts with an overview of Middleton's early career (chapter one), moves on to detailed analyses of his city comedies and tragicomedies (chapters two and three) and ends with his last comic satirical play, A Game at Chess, to which an entire chapter is devoted (chapter four).

The second part of the volume ("Le tragedie e il nuovo canone") deals with Middleton's tragedies, starting with the new attributions: A Yorkshire Tragedy and The Revenger's Tragedy (chapter five); The Bloody Banquet and The Lady's Tragedy (chapter six). Then, the book focuses on the 'canonical' Hengist (chapter seven), Women, Beware Women and The Changeling (chapter eight), and on Middleton's collaboration with Shakespeare - who appears to have chosen the younger colleague as one of his collaborators (Timon of

Athens) - and on his revision and adaptations of some Shakespearean plays (chapter nine). This is the reason why a review of this study is appropriate in Memoria di Shakespeare.

The chapters contained in the two sections present the texts with deep and relevant explanatory insights into their structure and internal dynamics and into their historical context and background.

Middleton was a satirical observer of coeval society. In his comedies and tragicomedies he pierces the vanity, hypocrisy and the foibles of his contemporaries in realistic portrayals of everyday life, concentrating his irony on economic problems, social relationships and sexual affairs: "What's this whole world but a gilt rotten pill?" (The Roaring Girl, IV.ii.221). In his tragedies - focused primarily on the protagonists' inability to surmount the limitations placed upon them by religion, family prejudice and society - his irony turns into cynicism and his characters are shaped with lurid and horrifying violence sometimes verging on the grotesque.

Middleton's sharpest social criticism was directed against the court and other people in authority.

After a period of optimism following the coronation of James I, the king was criticised for his tyranny, corruption and luxury, and the Jacobean dramatists portrayed the moral and political decadence of the court by safely distancing it into a foreign setting: a stereotypical Italy, conventionally seen as the land of treachery, bloodshed, poison, murder, flattery, lust.

For instance, Roger Ascham, Princess Elizabeth's tutor, had included a discourse against travels in Italy in his The Schoolmaster (1570): "time was when Italy and Rome have been [...] the best breeders and bringers-up of the worthiest men [...]. But now that time is gone, and [...] the old and present manners do differ as far as black and white, as virtue and vice. [...] Italy now is not that Italy that it was wont to be, and therefore not so fit a place [...] for young men to fetch either wisdom or honesty from thence". Thomas Nashe echoes him by adding, a few years later: "From thence [Italy] he [the English gentleman] brings the art of atheism, the art of epicurizing, the art of whoring, the art of poisoning, the art of sodomitry. [...] [I]t [Italy] maketh a man an excellent courtier, a curious carpet knight - which is, by interpretation, a fine close lecher, a glorious hypocrite. It is now a privy note amongst the
better sort of men when they would set a singular mark or brand on a notorious villain to say he hath been in Italy" (The Unfortunate Traveller, 1594).

Middleton too draws on this negative image of Italy - e.g., in The Revenger's Tragedy, with its allegorical characters called by the Italian equivalents of Lecherous (Lussurioso), Ambitious (Ambitioso), Bastard (Spurio), and in Women, Beware Women, with its despotic Duke of Florence (Francesco I de' Medici) and his mistress Bianca (Cappello) - in order to criticise coeval English monarchy from the safe distance of an abstract, stereotypical Italian setting of decadence and corruption.

Middleton's social concern that came to figure more and more prominently both in his comedies and in his tragedies is at the core of the research process that informs Daniela Guardamagna's detailed and contextualised case study: "Un tema centrale di questo volume", she writes, "è l'analisi della presenza di una critica feroce, sia nelle commedie sia nelle tragedie middletoniane, della corruzione della Corte. Ma questa critica non risparmia gli attacchi ai maneggi dei citizens contro la gentry, gettando luce su quanto accadrà nella realtà storica, quando i citizens arriveranno effettivamente a prendere il potere" (p. 29).

For this reason, this engaging book, while bringing together a range of interesting perspectives on Thomas Middleton's dramatic work, is also an important study of Jacobean England, and, as such, it speaks to a variety of audiences interested in the writer, in drama and in cultural history.

Valerio Viviani, "La Tuscia" University, Viterbo
Marrapodi, Michele, ed., The Routledge Research Companion to
Anglo-Italian Renaissance Literature and Culture, London-New
York, Routledge, 2019, pp. xv+528.

This book, published in 2019, is part of a series of important essays illuminating the fundamental relationship between Italian Renaissance works, Shakespeare and early modern English drama, and poetry. These studies were issued in the series "Anglo-Italian Renaissance Studies", devised by Michele Marrapodi, its general editor. Marrapodi - who acknowledges his inspiration from Robert S. Miola's work on the influence of Seneca, Latin and Greek New

Comedy and Italian sources on Shakespeare and his contemporaries (p. 21 and passim) - has widely written and edited on the subject: from the seminal 1993 Shakespeare's Italy to Shakespeare and His Contemporaries (1999) to Shakespeare, Italy, and Intertextuality (2004), up to the influential Shakespeare and Renaissance Literary Theories: Anglo-Italian Transactions (2011), Shakespeare and the Italian Renaissance: Appropriation, Transformation, Opposition (2014), and Shakespeare and the Visual Arts: The Italian Influence (2017, which has just been published in paperback).

In the present volume, as in many of the above, a clear stance is to be found - and praised: as Marrapodi states in the introduction, recent criticism has established that the point to be highlighted in Italian-English relationships is not a passive absorption of literary texts, with "direct linear sources and adaptations"; the common core of the essays (Marrapodi's, but also Smarr's, Clubb's or Elam's) is the emphasis on the "creative intertextuality" which was at work throughout the early modern period. The rich reservoir of intertextual knowledge, reading and practices represents a "generative machine" producing powerful models (Marrapodi, p. 3, quoting Keir Elam's "Italy as Intertext", in Marrapodi 2004) for the creation of English plays and poems, where the Italian Renaissance writers' works were read, absorbed, introjected and reemployed.

Of course, the deeply controversial and ambivalent stance towards Italy is taken into account, as both "the cradle of early modern European civilization, of poetry, and art" and as a territory of vice, revenge plots, popish corruption (Marrapodi, p. 5); a "reviled other" (Walter, p. 295), contemplated both with "fascination and repulsion" (Marrapodi, p. 7), with "a mixture of enthusiasm and moral resistance" (Smarr, p. 80). Smarr applies this oxymoron to Machiavelli's fortune in England, but this stance can be seen to relate to most imitations from the Italians, where Boccaccio - for one - inspires many plots and ideas; but English authors 'sanitize' his more irreverent thrusts against the ruling classes and the status quo. The progressive attitude Ariosto shows towards his heroines is also shown to have been domesticated and simplified in some of his English translations, Harington's in particular (Scarsi, esp. pp. 172-75).

Another common core of this study is the acceptance of the controversial hypothesis that Shakespeare could read Italian, and that he resorted to Painter's and Bandello's translations only as a help to interpret his sources (see among others Walter, pp. 295-96). He is even supposed to have read Orlando Furioso in the original (Scarsi, p. 160, following Jason Lawrence's assumption, as Melissa Walter does).

The essays devoted to revenge tragedies rightly show the influence of Seneca through the Italians as paramount: with the mediation of works by Giraldi Cinthio (Orbecche in particular), Trissino, Rucellai (especially his Rosmunda), Sperone Speroni, Lodovico Dolce, and a few more. The extremely well-documented essay by Mario Domenichelli identifies all the elements of the inheritance, emphasizing the aspect - known to specialists, but usefully recapped and expanded on here - of the use of Italian courts as a mask for an effective criticism of corruption and vice at home. Going back to Marrapodi's introduction, an interesting hypothesis is that the "excessive theatricality and gruesome sensationalism" of John Webster "epitomises, perhaps more eloquently than other dramatists" (pp.13,18), the use of Italy both as butt and mask. This is fairly convincing, though the fact that Marrapodi unfortunately chooses to ignore the attribution of The Revenger's Tragedy to Thomas Middleton (by now certain, and rightly mentioned by Domenichelli) might have led him to underestimate Middleton's role in the same field. In his plays, Catholic countries - Italy in The Revenger's Tragedy and Women Beware Women, Spain in The Changeling - represent an image of corruption maybe even more profound than Webster's.

The importance of "courtesy literature" as teaching the ars vivendi might be underestimated by the profane. In this book, Castiglione's, Della Casa's and Guazzo's teachings are analyzed in two essays (Cathy Shrank's and Mary Partridge's), but their overall importance is often stressed, as in the second notable essay by Mario Domenichelli (esp. pp. 420-23). Domenichelli usefully reminds the reader of the widespread practice of publishing controversial Italian books in England, sometimes importing them to Italy again, as happened to Giordano Bruno's Spaccio de la bestia trionfante and other works, as shown in Sacerdoti's insightful essay on the Nolan martyr. Diego Pirillo as well, in his essay on "heretics,
translators, intelligencers", underlines again the relevant factor of the printing in England of works forbidden in Italy - sometimes smuggled back with the pretense of an Italian publication. English print houses are here defined as "miniature international houses" (pp. 405, 408) for the spreading and the discussion of controversial ideas.

The two parts of the volume tend to overlap, but there is an identifiable division of sorts. The first part concentrates on the most prominent authors and phenomena in Renaissance Italy, taking into account their 'journey' to England but positing itself more firmly on the Italian side; the second part delves more profoundly into the relationship between Italian authors and phenomena and their influence on English writers, taking into account common sources (especially Seneca and the New Comedy of Plautus, Menander and Terence), English translations and the English remodeling of ideas, narremes and theatregrams (useful terms coined some decades ago, as Nicholson reminds the reader, by Louise George Clubb).

The Italian authors and phenomena shown to be relevant for their influence on English playwrights and poets are first of all the "three crowns", Dante, Petrarch and Boccaccio. Dante is much less influential than his prominence as a writer would make us expect, and more with his Vita nova rather than with the Comedy, as Marco Andreacchio shows; on Boccaccio, see the next paragraphs; Petrarch, again, is shown to have been more influential with his Latin prose works and, later, with his Trionfi rather than with the Canzoniere: in the earlier ages, more as a "moral thinker rather than a poet", as John Roe pertinently shows (pp. 269-87, esp. 269-72), and later more with his ideas and concepts rather than his polished style, often neglected and mistranslated. Other writers and thinkers are deeply analyzed in the book: Machiavelli (both as a political writer and as a playwright), the "courtesy literature" (Della Casa, Castiglione, Guazzo), the Italian novella, Tasso, the "commedia dell'arte", up to Giordano Bruno and Paolo Sarpi.

The influence of Boccaccio is stressed in various essays; it is central in Janet Levarie Smarr's profound study but appears throughout others. A crucial concept to be noted in Smarr's essay is the "theatricality" of the Decameron, where characters "are often
consciously performing" (p. 76), and where Boccaccio is shown as harking back to Plautus and Terence. The presence of seminal narremes and theatregrams, such as the disguise or the bed-trick, but also the device of the trunk and the wager motif (which will of course be central in Cymbeline), is shown as relevant for both Italian playwrights - such as Machiavelli and Aretino - and for many English playwrights: Shakespeare, Fletcher, Ben Jonson, Middleton, Massinger and Dekker. In the second part of her essay, Smarr interestingly indicates how the influence of the CounterReformation caused a shift in the mood of Italian plays towards "moral orthodoxy and romantic content" (p. 111), thereby preparing the way to the birth of tragicomedy.

The frequent reworking of narremes and theatregrams, born in Italy and re-employed by English playwrights, is also shown in Louise George Clubb's rich and documented essay on the commedia erudita. Specimens pertaining to this genre were written both in Latin and Italian by such authors as Ariosto, Boiardo, Pomponio Leto, Bembo, Bibbiena, Ruzante, and by the "radical writers" Machiavelli and Aretino. Clubb's essay proves the relevance of imitatio of classic literature in Italy and deals with more theatregrams, adding the brave cross-dressing heroine, the recognition and reunion of long-lost relatives (p. 109) and the theme of feigned madness (mentioned in Eric Nicholson's essay as well, p. 366). The list of the most frequent theatregrams is completed by Melissa Walter, who - quoting Marrapodi - adds the topoi of the twin brothers and that of "the lewd magistrate" (pp. 293-94).

The essays devoted to Ariosto and Tasso (Selene Scarsi's and Jason Lawrence's) show their persistent presence in the theatre and in English epic poetry, particularly in Spenser and Milton. After the deep influence on Spenser, mentioned in both essays, Lawrence shows in detail how Tasso's "erotic allure" (p. 256) echoed in Samuel Daniel's work and, almost a century later, in Dryden's and Purcell's; the second part of his convincing essay deals in depth with the borrowings from Tasso by Milton, which have partly been identified in Fowler's edition and later studies. The presence of Tasso - Lawrence reminds the reader, quoting Fowler's edition - is revealed by the "almost incalculable quantity of direct echo of the Gerusalemme liberata in Paradise Lost" (p. 250).

The pastoral form, which is analyzed in Robert Henke's essay (devoted to tragicomedy) and Jane Tylus' (concentrating on pastoral poems and novels), is shown as central in the birth of plays like A Midsummer Night's Dream and The Tempest (amusingly defined by Clubb as "pastorals minus pastors", p. 114). The influence of Giraldi Cinthio, Guarini and Tasso's Aminta is usefully dealt with in both essays.

Some space is devoted to the commedia dell'arte, which is the subject of Richard Andrews', Eric Nicholson's and Rosalind Kerr's essays. These point out some characteristics of the commedia, especially the underestimated fact that improvising was less pivotal to the creation of scenarios, while the memorizing of setpieces and the capacity of adapting them to new situations arising on stage was central to the creation of good performances. Kerr concentrates on the importance of great actresses ("divas"), active on the Italian stage since the 1560s; Richard Andrews also effectively shows the interdependence of three-act scenarios and five-act traditional plays. The latter started from the success of a staged scenario and gave birth to written, published plays, which in turn were assimilated by English playwrights.

Machiavelli is often mentioned, but two essays are specifically devoted to him. Duncan Salkeld's study concentrates on Machiavelli's comedies (Mandragola and Clizia), with the beffa to the old husband, bed-tricks and potions to get pregnant (which will be employed by Middleton in A Chaste Maid in Cheapside, a precise influence which is not mentioned by the contributors to this volume). Salkeld's essay deals with the central concept of virtù in Machiavelli, the lucid cynicism informing both his plays and his political writings, and his satirical thrusts against the meddling of the Church in family matters, which was mostly sanitized by his English imitators. Alessandra Petrina's profound and informed essay deals with the well-known misrepresentation of Machiavelli in the English imagination, finding instances in plays, texts and pamphlets, but also stating how this misconstruction was less widespread than is usually thought. In the Republican period, in particular, Machiavelli's writings (both Il Principe and the Discorsi) were used to "throw light on the pitfalls of monarchical rule" (p.
337) and as a warning against the excesses of Monarchic government.

Interesting topics in the volume which have not been mentioned are European festivals (J. R. Mulryne, pp. 376-88), the relevance of music and Italian paintings in Shakespeare's work (Duncan Salkeld's second essay, pp. 299-311), and the presence of Paolo Sarpi in England (Chiara Petrolini and Diego Pirillo, pp. 434-49). Lastly, the fundamental influence of John Florio as an interpreter and transmitter of Italian culture in the English Renaissance is dealt with by Michael Wyatt, who closes his essay with a final thrust against some public figures (like Lamberto Tassinari), who have promoted the fashionable, anti-Stratfordian hypothesis which identifies in John Florio the real author of Shakespeare's plays.

Daniela Guardamagna, University of Rome Tor Vergata

\section*{Abstracts}

\title{
Leader and Pack: On Two Scenes Concealed from View in Shakespeare's Julius Caesar
}

\author{
Silvia Bigliazzi
}

The article discusses Shakespeare's exploration of the potential of networks of mutable relations in power struggles in Julius Caesar through the lenses of Plutarch's and Appian's narratives. It focuses on the episode of the Lupercalia and on Brutus' political position in the immediate aftermath of Caesar's assassination. In both cases, Shakespeare reworked the sources through strategies of indirection by erasure: on the one hand, by using the onstage/offstage dialectic to appropriate and dramatise the ambiguities contained in Plutarch's narrative of Caesar's double policy towards his friends and towards the people; on the other, by translating spatially the long narratives about Brutus' movements between the Capitol and the Forum before Antony takes command of the people, through a quick transition from the murder scene to his oration in the Forum. The article contends that these episodes suggest a nuanced conception of leadership reverting one-way notions of hierarchies of power.

Keywords: Shakespeare's Julius Caesar, Plutarch, Appian, Lupercalia, Brutus

\section*{The Tempest: Notes on Date and Text}

\author{
Roger Holdsworth
}

The text of The Tempest is one of the cleanest in the Shakespeare canon, but it is not without its enigmas. Editors continue to disagree over whether and how to emend certain readings, and how to make sense of others where emendation does not help. The present study examines some of the more intractable problems, focusing on the solutions offered in the best editions of the play that are currently available, and proposing alternatives.

Keywords: The Tempest, First Folio, Chronology, Textual problems, Editorial commentaries

\section*{Christopher Marlowe and a Mashup of Stylometry and Theater History}

\author{
RosLyn L. Knutson
}

Finding the hand of Christopher Marlowe in the plays of his contemporaries is nothing new, but the enterprise never had significant influence on the stories told by theater historians about his place in the playhouse world of early modern London. One reason why is that Victorian scholars and editors (given few biographical details) developed an implicitly antagonistic narrative in which Marlowe, having preceded William Shakespeare to London and professional success, remained somewhat apart. When documents of Marlowe's final few years did surface in the 1920s and 1930s, they appeared to reinforce his otherness rather than a friendship network with players, fellow dramatists, and playing companies. Another reason is that the activity of disintegrating Shakespeare's canon lost favor in the first quarter of the twentieth century due to the influence of Shakespeareans such as E. K. Chambers and W. W. Greg, who were at the same time codifying narratives of the history of the late Elizabethan playhouse world. However, practitioners of authorship studies have regained the attention of textual scholars and theater historians. Their computerized programs appear to make the identification of dramatists' hands scientific (rather than impressionistic), and textual disintegration is again in fashion. In this essay, I consider the implications
of current work in stylometry for theater historians. Not contesting the inprogress reportage of these claims, I consider how recent authorial attributions mash up with stock narratives of Marlowe as a radical personality at some professional distance from the workaday world of the 1590s theatrical marketplace.

Keywords: Marlowe, Stylometry, Theater history, Authorship, Elizabethan theatrical marketplace

\section*{Selfish Bastards? A Corpus-Based Approach to Illegitimacy in Early Modern Drama}

\author{
JaKob Ladegaird, ROss DEANS KRISTENSEN-MCLACHLAN
}

This paper presents a study of bastardy in a corpus of 19 dramatic works from 1590 to 1642, including 4 plays by Shakespeare (King John, Much Ado About Nothing, King Lear and Troilus and Cressida). Inspired by the work of Jonathan Culpeper, we use keyword analysis, a corpus-based approach to stylistics, to study the characterization of bastard characters compared to other characters in the same plays. Furthermore, the study compares the characterization of bastard characters in different genres (tragedy, comedy, history). Log-likelihood and \(\log\) ratio is used to measure the statistical significance and effect size of the keywords, and we draw on historical scholarship and literary close reading to interpret the results. We find that bastard characters are distinguished by two semantic clusters, one relating to first person pronouns, the other to the negative cultural associations of bastardy. This result confirms claims by Alison Findlay and Michael Neill that bastard characters are typically self-centered and concerned with their illegitimacy. However, we also find significant differences between genres that have not previously been described systematically. While both semantic clusters have a strong presence in the tragedies, the cluster related to bastardy is largely absent from the comedies and histories. There are also more subtle but telling differences relating to the first-person cluster. Tragedies thus tend to characterize bastards through the negative stereotypes of illegitimacy in the period, sometimes uncritically, sometimes critically. Edmund in King Lear is an early trend-setting example of this kind of character. The comedies and histories vary more in their characterization, but towards the end of the period, particularly in the comedies of Richard Brome, we see a more positive characterization of
bastards. We illustrate these differences in a brief comparison of Shakespeare's tragedy King Lear (1606) and Richard Brome's comedy A Jovial Crew (1641).

Keywords: Bastardy, Illegitimacy, Early modern drama, Keyword analysis, Corpus stylistics

\section*{Computational Philology}

\author{
Jonathan P. LAMB
}

This paper uses exploratory statistical analysis of Shakespeare's style to argue that computational methods, like critical theory before them, can reform but must not abandon the philological heart of humanistic inquiry. I make this argument by demonstrating how advanced statistical methods are basically philological in scope, quality, and stakes. Philology, which James Turner defines as "the multifaceted study of texts, languages, and the phenomenon of language itself", acts as both method and field in Shakespeare studies. Even when unconcerned with language per se, Shakespeare scholars have drawn from the well of philological method: comparing instances of a form or phrase, situating texts in cultural and material environs, and formulating interpretive claims about texts. Responding to recent computationally-oriented scholarship, I argue that digital methods, which most scholars view as a historic departure, in fact extend the work of philology. I apply various methods to a curated corpus of Shakespeare's characters' speech. As a dataset produced (mostly) by a single writer but consisting of more or less individuated voices, character speech provides opportunities for comparison and confirmation that tell us as much about the statistical methods as they do about Shakespeare's style. I apply dimension reduction techniques (in particular, Principal Components Analysis) and examine the results, using statistical methods to analyze Shakespeare's style and Shakespeare's style to analyze the methods. These techniques, I argue, are themselves bound up with philological methods.

Keywords: Philology, Dimension reduction, Python, Dramatic character, Dramatic genre

\section*{Shakespeare on the Tree (2.0)}

\author{
GIULIANO PASCUCCI
}

The present article borrows from biology the idea of identifying and assessing phenotypical and genotypical traits shared by different individuals so as to group them into families. The aim of the research is to ascertain whether it is possible to create phylogenetic trees of Shakespeare's theatrical plays and to what extent such tools may prove useful to Shakespearean scholars. Considering each Shakespearean play as a single individual with a distinguishing DNA of its own and closely following the procedures used in the field of molecular biology, the author resorts to a modified zipping algorithm to retrieve and extrapolate character strings (DNA sequences) shared by text pairs. Such pairs are subsequently plotted utilizing an algorithm specifically designed to create phylogenies. The final sections of the paper illustrate 4 phylogenies and discuss how they may prove useful in different fields of textual criticism. The first shows the effectiveness of the procedure in text recognition. In the second text recognition is made even more difficult by increasing the number of text pairs to be analysed. The third deals with language recognition issues by showing how a play written in a different language is recognised as such and isolated from the rest of the Shakespearean corpus. Eventually the fourth tree sketches a methodology to tackle authorship attribution issues.

Keywords: Phylogeny, Cladogram, Language recognition, Author recognition, DNA sequencing

\section*{Does It Matter that Quantitative Analysis Cannot Deal with Theatrical Performance?}

\section*{EdWARD PECHTER}

The question in my title takes off from the longstanding controversy in Shakespeare studies between literary and theatrical value. I am interested in the claim that a digitally based quantitative approach, while it may have a limited purchase on the ephemeral and transient effects of theatrical performance, is nonetheless well positioned to analyze the stable effects of
theatrical texts. The assumption behind this claim, that the linguistic features which constitute texts may be counted as if every instance of a given feature produces effects identical to every other, is, I think, mistaken. Words may of course be treated as data, but textual effects do not inhere in the quantifiable properties of textual objects; they depend on the actions of interpreting subjects. From this angle, textual effects, however differently produced from theatrical effects, are similarly unstable, and quantitative analysis is not suited to the interpretation of either one. This in no way diminishes the achievements of quantitative practitioners, of which attribution - untangling numerous webs of collaborative authorship and assigning a proliferation of Renaissance playtexts, orphaned at birth, to authorial homes - is only the most spectacular recent example. But to treat numbers as meaning, to take the processing of data as if in itself it produces interpretive conclusions, extends quantitative analysis into areas outside its own jurisdiction. Such expansive designs are damaging in the first instance to the overreachers themselves; unfulfillable promises reinforce the suspicions that sequester quantitative analysis in a negligible space. The damage extends to the technoskeptics on the other side as well, who will find themselves confirmed in their prejudices and therefore even less likely to take advantage of the real benefits a digitally based quantitative approach makes available to all Shakespeareans.

Keywords: Theatrical effects, Textual effects, Interpretation

\section*{Resisting Friendship in Shakespeare}

\section*{TZACHI ZAMIR}

Scholars have long sensed that Shakespeare distances himself from the ideology of perfect friendship, so dominant in his culture. This essay participates in this conversation by advancing two explanations for Shakespeare's distrust of friendship. First, friends limit selves to what they were, preventing some transformations (examples discussed involve the love versus friendship tension played out in some of the comedies). Second, opening one's heart to a friend requires abandoning self-love when recognizing the varied excellences which friends exhibit (a pattern of friendship resisted suggested by Timon of Athens).

Keywords: Friendship, Narcissism, Timon of Athens, Resisting change, Self, Love

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1613 (1991), Playing Companies and Commerce in Shakespeare's Time (2001), Christopher Marlowe, Theatrical Commerce, and the Book Trade (2018), coedited with Kirk Melnikoff (University of North Carolina-Charlotte), and Loss and the Literary Culture of Shakespeare's Time (2020), co-edited with David McInnis (University of Melbourne) and Matthew Steggle (University of Bristol). A pioneer in the field of repertory studies, she has published essays on playhouse commerce in numerous journals, annuals, and collections. An on-going project is the wiki-style Lost Plays Database, which she founded with David McInnis (University of Melbourne) and coedits with him, Matthew Steggle (University of Bristol), and Misha Teramura (University of Toronto).

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Jonathan P. Lamb is Associate Professor of English at the University of Kansas, where he writes and teaches about Shakespeare, early modern literature, book history, and computational text analysis. His first book, Shakespeare in the Marketplace of Words (Cambridge University Press, 2017), concerns Shakespeare's use of peculiar formal features of language to interact with the world. He is now at work on a book titled How the World Became a Book, about how early modern writers used the vocabulary of the printed book to talk about life, death, sex, gender, damnation, old age, and capitalism.

GIULIANO PASCUCCI earned his PhD at Sapienza University of Rome in 2006 defending a dissertation in which he tried to discriminate between Fletcher and Shakespeare's authorial "fingerprints" in All Is True using computerbased tools. On the same subject he has produced a number of essays in which he has tackled other textual issues such as the Cardenio/Double Falsehood critical debate.

Edward Pechter is Distinguished Professor Emeritus, Concordia University (Montreal), and Adjunct Professor of English, University of

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Tzachi Zamir is a philosopher and a literary critic (Professor of English and Comparative Literature) and currently directs the Honors Program at the Hebrew University of Jerusalem. Zamir is the author of Double Vision: Moral Philosophy and Shakespearean Drama (Princeton University Press, 2006), Ethics and the Beast (Princeton University Press, 2007), Acts: Theater, Philosophy and the Performing Self (The University of Michigan Press, 2014), Ascent: Philosophy and "Paradise Lost" (Oxford University Press, 2017) and Just Literature: Philosophical Criticism and Justice (Routledge, 2019). He is also the editor of Shakespeare's "Hamlet": Philosophical Perspectives (Oxford University Press, 2017).```


[^0]:    1 I have previously used the same method in other works, e.g. in the article
    "Double Falsehood/Cardenio: A Case of Authorship Attribution with Computer-

[^1]:    Based Tools" (Pascucci 2012), in which I addressed the Cardenio/Double Falsehood querelle, and in "Using Compressibility as a Proxy for Shannon Entropy in the Analysis of Double Falsehood" (Pascucci 2017), where the same subject matter was investigated again in detail and including a larger number of plausible Shakespeare's collaborators. Criticism received over time by this method as less performing than Markov chains and Naive Bayesian methods has been commented on by the authors who created the method (Benedetto, Caglioti, and Loreto 2002a, 2002b and 2003). As for criticism received by Shakespearean scholars about how I used the method, in this paper I expand on its details in the hope of clarifying points that may have come across as obscure in the past.

[^2]:    2 In order to avoid misconceptions, I have deliberately mimicked the plotting of DNA resorting to animals commonly described in medieval bestiaries.

[^3]:    ${ }^{3}$ The interested reader will find simple explanations of phylogenies at http://bio1520.biology.gatech.edu/biodiversity/phylogenetic-trees, together with links to other material, including video tutorials on how to build phylogenies.

[^4]:    4 In 1948, while working at AT\&T Bell laboratories, Shannon demonstrated that there is a limit to the compressibility of a message. He called the compression limit "entropy", using a term commonly occurring in physics to describe the increasing disorder of a system at its molecular or atomic level. The term was suggested by the mathematician John von Neumann. Up to that moment, Shannon had only formulated the idea of information as "resolved uncertainty". When he asked von Neumann for a better word to call it, the mathematician humorously replied that he had to call it "entropy", not only because information reduces entropy, but also because no one actually knows what entropy is, so in a debate about the subject Shannon would always have the advantage. At the beginning entropy had been a concept only related to the field of thermodynamics. However, later in its history, after von Neumann's suggestion, Austrian physicist Ludwig Boltzmann provided a probabilistic interpretation of entropy "in order to clarify its deep relation with the microscopic structure underlying the macroscopic bodies" (Baronchelli, Caglioti, and Loreto 2005, S70). Although the use of the term may well be

[^5]:    confusing to scholars of disciplines other than IT, it is intuitive that information provides meaning and structure, thus reducing entropy, which in thermodynamics is the state of disorder to which all systems tend.

[^6]:    5 The idea of appending a text A to a text B in order to compute remoteness had already been suggested in Loewenstern et al. 1995 and in Kukushkina, Polikarpov, and Khmelev 2001.
    6 The distance-matrix algorithm and the neighbour-joining algorithm can be found in PHYLIP, a free package of programs for phylogenies available at

[^7]:    7 Short programs (series of commands) usually meant to automatically carry out simple tasks operated through a command-line interpreter. In the present work the scripts have been created resorting to Bash (Bourn Again Shell), a Unix Shell and command language, and have subsequently been merged so as to launch a single process. A streamline visual interface has also been created for prospective users.

[^8]:    8 This is why, as mentioned before, removing speech headings from the texts was essential. Keeping them would have facilitated the algorithms in acknowledging as similar different chunks of the same play, thus marring the assessment of their efficacy.

[^9]:    9 The remainders of the division smaller than 16 KB were discarded as in the previous experiment.

[^10]:    10 I have here used Google Drawings to illustrate fragments of the phylogenies, which are rendered by the original program FITCH as text files and are therefore not suitable for extracting and printing.

[^11]:    11 Included in fragment 2 Henry IV_ab.

[^12]:    ${ }^{12}$ The procedure was tested including up to six texts in six different languages. All were successfully recreated. Further research is necessary to test the limit of the procedure. In this case study, the limit could not be further widened because of computational limitations.

