In Search of the Voice of the *Edinburgh Review*

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The Open University

Introduction

Did the *Edinburgh Review* create a “transauthorial discourse” (Klancher 1987) that hid the voices of individual contributors behind a corporate style?

Corpus

Edinburgh Review:

- 45 articles
- 10 authors and one anonymous article
- 269,622 ‘words’

Preparation:

1. OCR with manual curation
2. TEI manual mark-up
3. attention to quotations

Stylometry

The study of how hidden stylistic traits can be measured through statistical methods to trace an author's voice

Made better known by John Burrows

“Many interesting things cannot be counted, but many others can.”

John Burrows

Why use stylometry?

Perception of authorial “voice” is quite subjective

- e.g. Duncan Wu (2007)

Computer-aided analysis can supplement humanistic research

Delta

“Delta is the mean of the absolute differences between the z-scores for a set of word-variables in a given text-group and the z-scores for the same set of word-variables in a target text.”

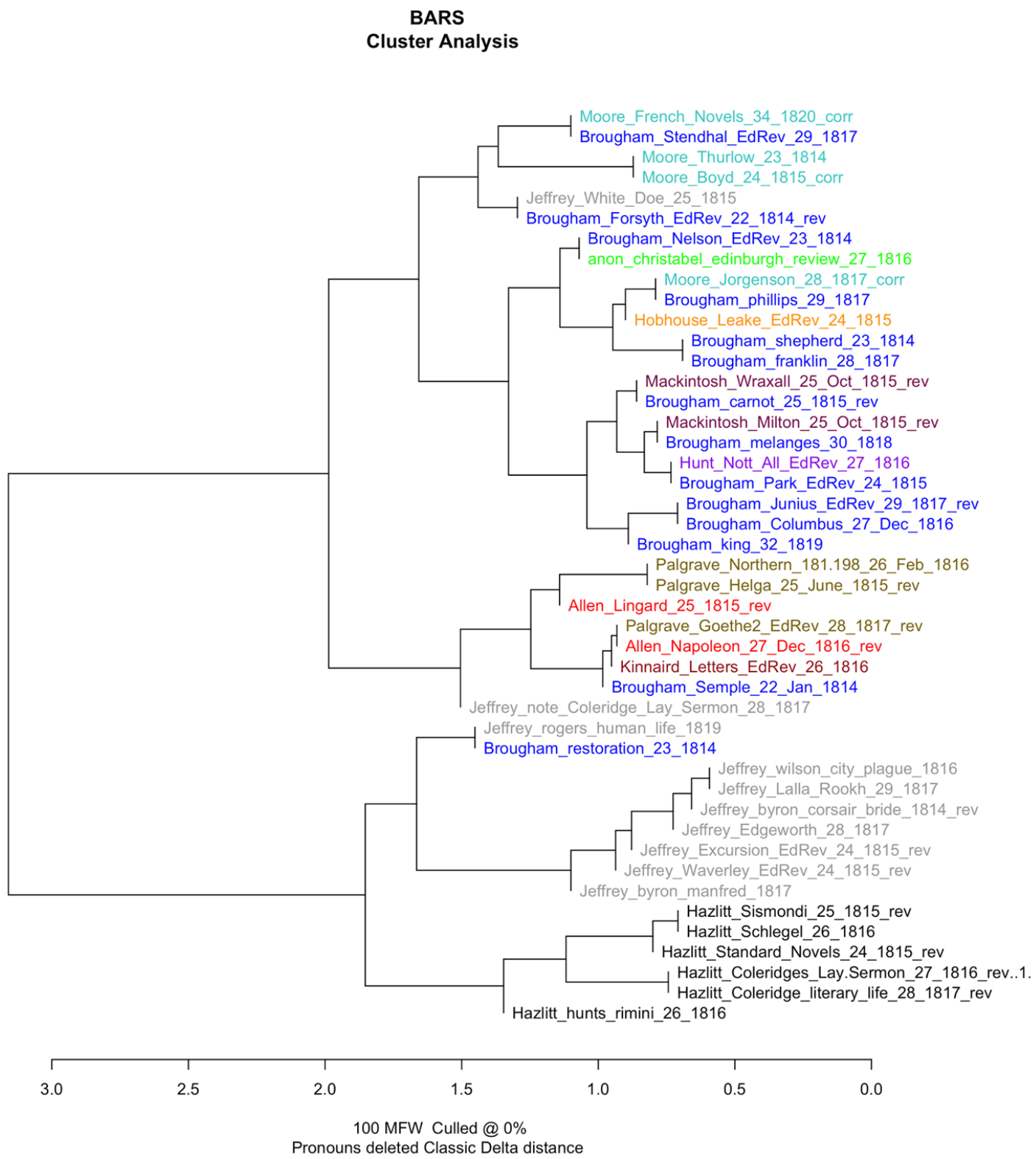
John Burrows

Delta continued

Delta works on the Most Frequent Words present in a given set of texts

We all use Most Frequent Words differently

Underpinned by solid mathematical and linguistic foundations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Cluster Analysis
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Brougham_Stendhal_EdRev_29_1817
Moore_Thurlow_23_1814
Moore_Boyd_24_1815_corr
Jeffrey_White_Doe_25_1815
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Hazlitt_hunts_rimini_26_1816
3.0
2.5
2.0
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1.0
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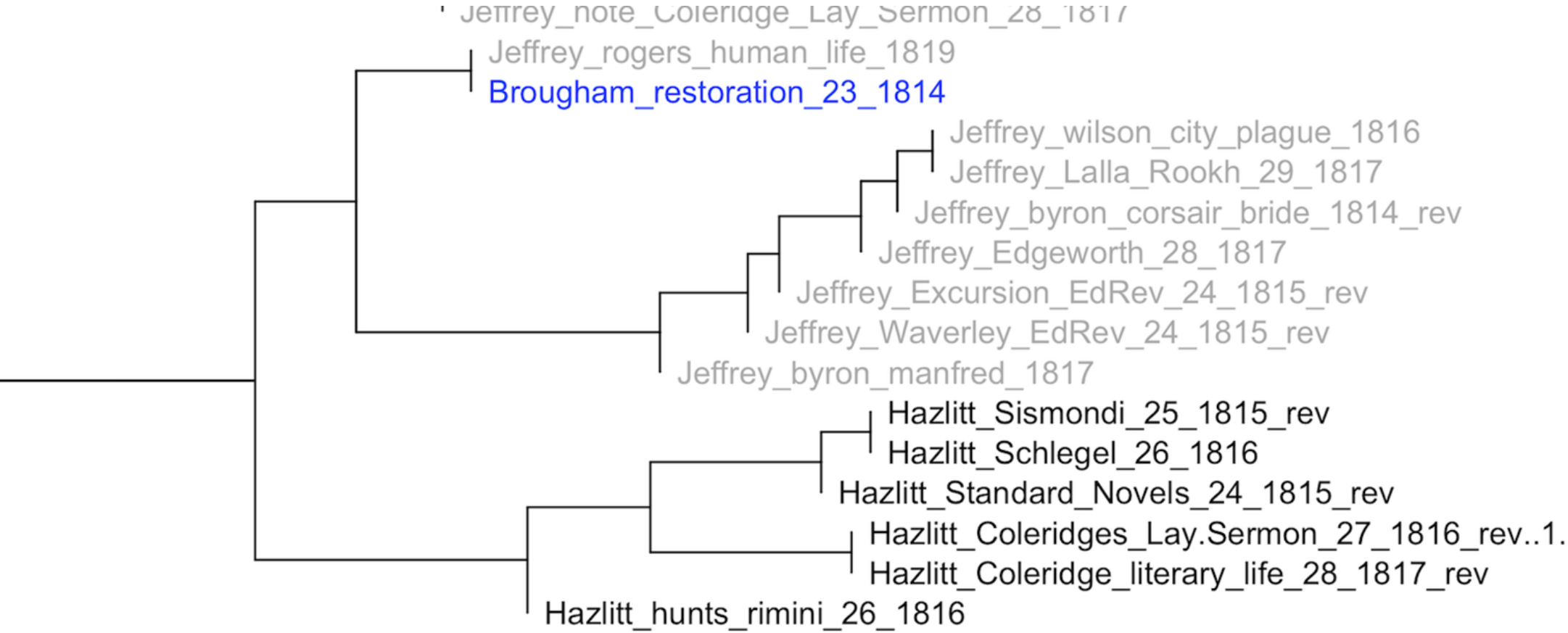
0.0
100 MFW Culled @ 0%
Pronouns deleted Classic Delta distance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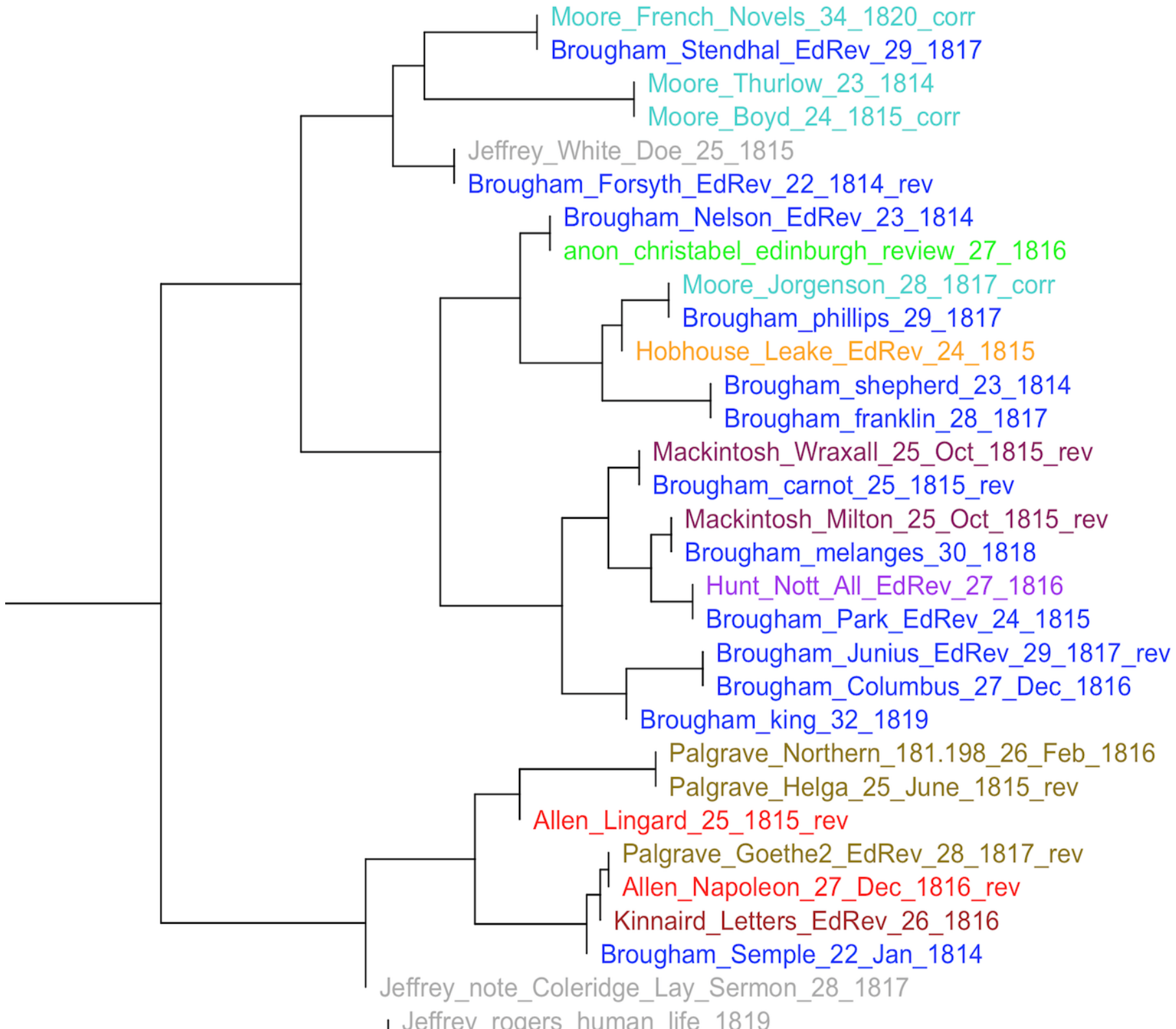

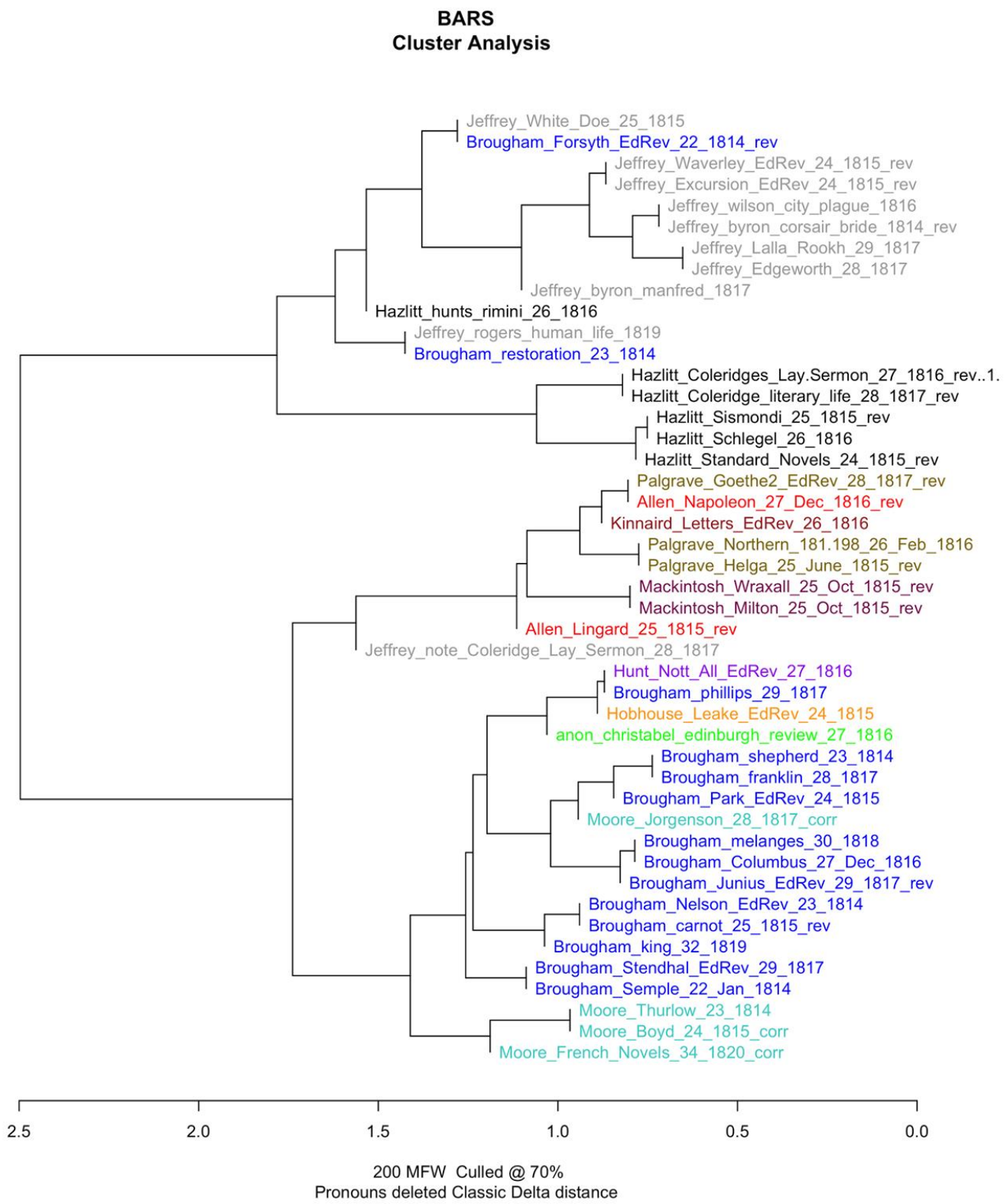
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200 MFW Culled @ 70%
Pronouns deleted Classic Delta distance

Data exploration with multidimensional scaling — spot the cluster

False clusters

Female pronouns

- Moore_French_Novels_34_1820_corr 36%
- Jeffrey_Edgeworth_28_1817 33%
- anon_christabel_edinburgh_review_27_1816 32%
- Jeffrey_Lalla_Rookh_29_1817 23%
- Brougham_melanges_30_1818 21%

…and 10 texts contained no female pronouns at all

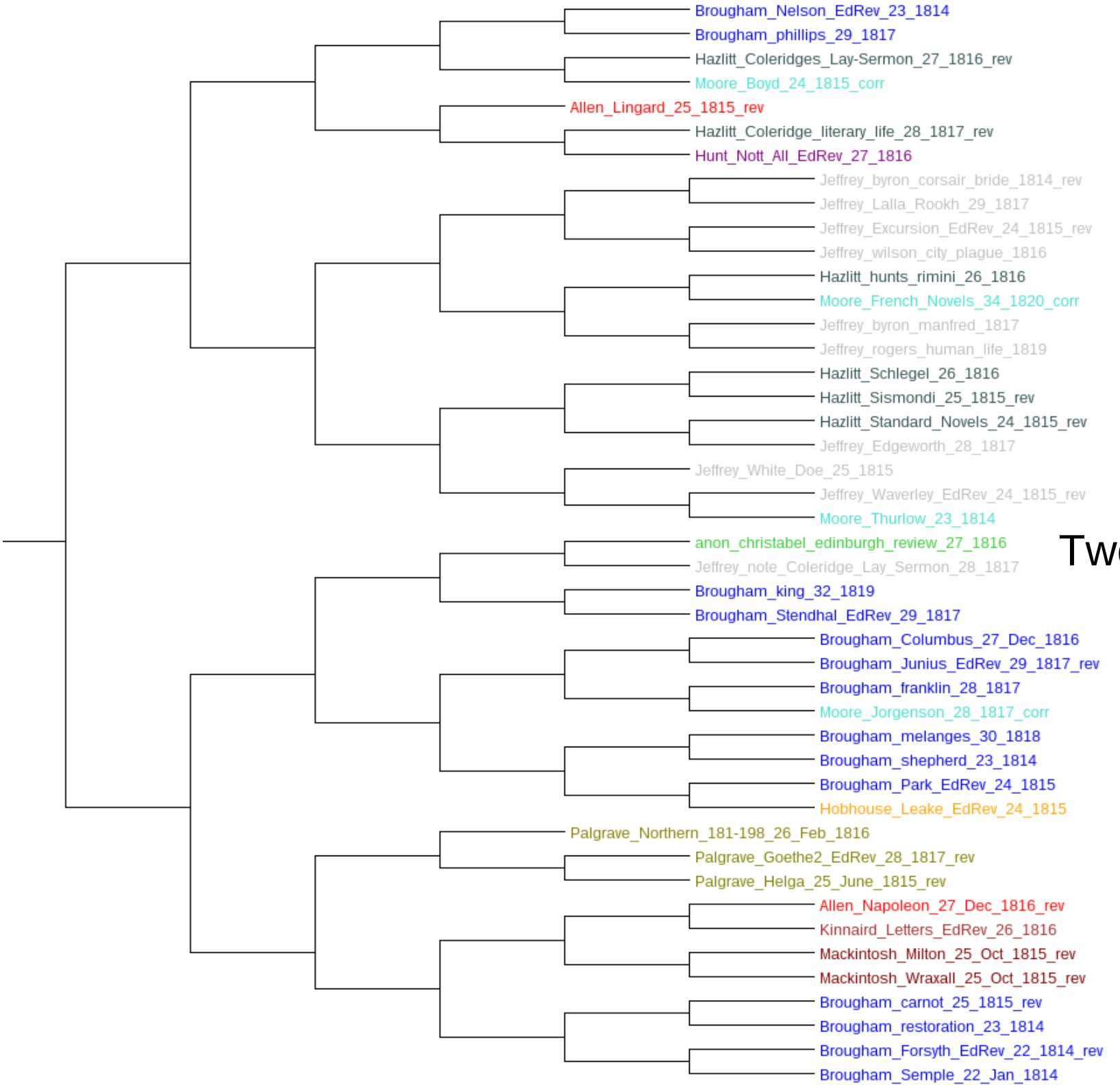
Increasing rigour

With clustering techniques that

- rely on random seeding, the results depend too heavily on the random starting point
- have parameters, the results depend too heavily on those parameters

Therefore, applied

- both *agglomerative* (hierarchy) and *partition* (kmeans) clustering techniques
- drilled down through two feature sets initially (lexical, POS), and later a third (tf:idf)



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Two weak clusters emerge

MFW vs TF:IDF

Both attempt to remove
the influence of content over style
in the analysis

MFW

Frequent words

Choose what to *include* in the analysis

TF:IDF

Significant words

Choose what to *exclude* from the analysis

Evaluation

Distinctions between authors weak but present

How noticeable are they to a human reader?

Do Jeffrey's editorial interventions erase individual voices?

Spot patterns that deserve close reading

Future work

Extend corpus:

- Quarterly Review
- CLMET

AntConc:

- keywords (words statistically more frequent)
- methods from corpus linguistics

Funding from RSVP to extend research (Jan-Oct 2017)

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