

WHERE DID THE ENGLISH NOVEL COME FROM?

Experimenting with computational approaches to investigate language in seventeenth-century prose fiction



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N8 CIR
COMPUTATIONALLY INTENSIVE RESEARCH



WHY THIS QUESTION? WHY THIS ERA? WHY THIS GENRE? WHAT TO PURSUE?



What are the transitivity and interpersonal patterns of gendered pronouns in the 17th Century novel and what does this reveal about the gender ideologies present at the inception of a cultural object?

QUESTION & DATA CONTEXT

TRANSITIVITY

transitivity “refers generally to how meaning is represented in a clause”

“It shows how speakers encode in language their mental picture of reality”

Paul Simpson, 2003.

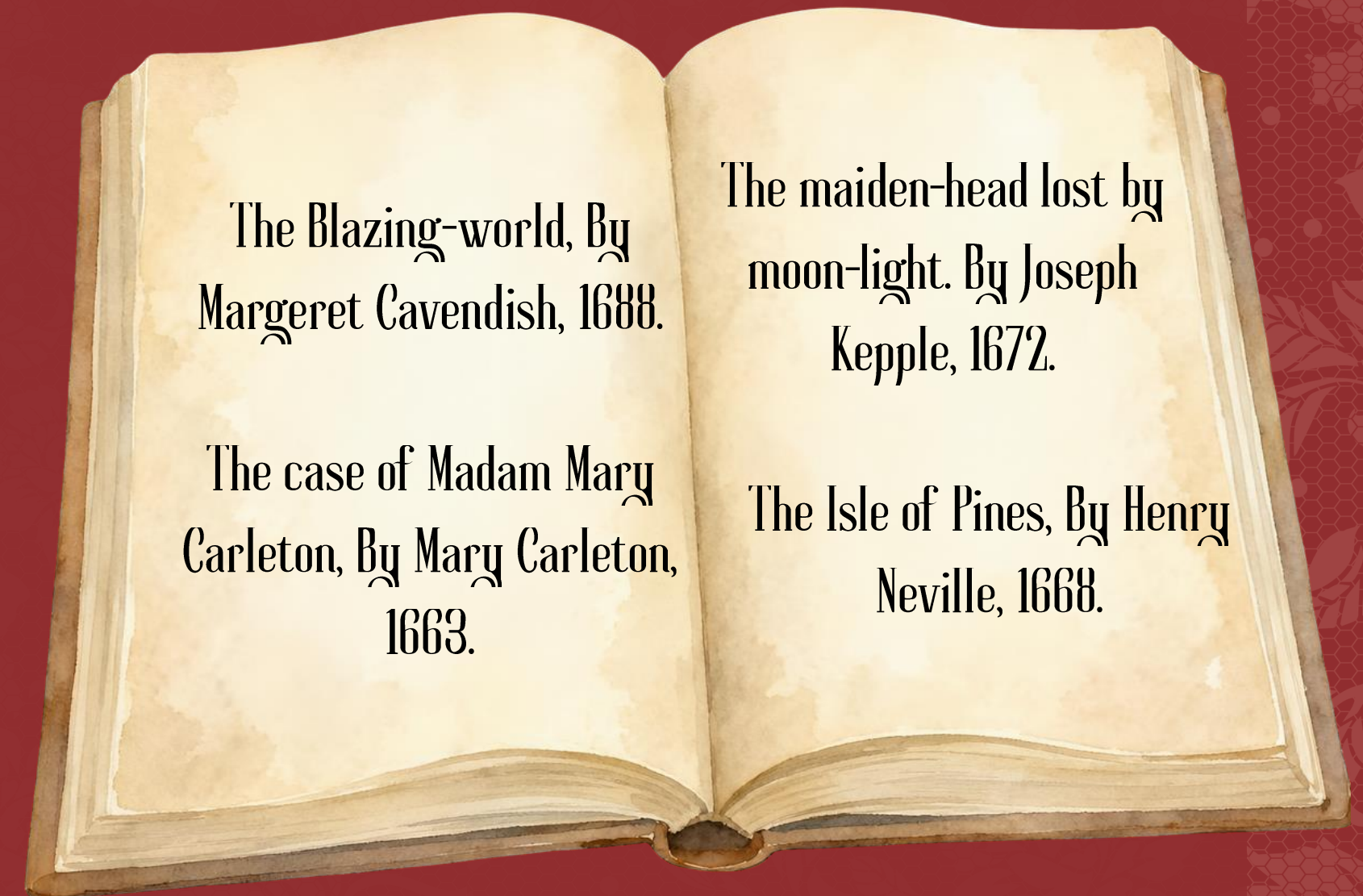
“grammatical system of experience”

Halliday and Matthiessen, 2004

GENDER

““until very recent times no literary era has been as conscious of what we call “gender” as the period we call “the restoration””

Margaret A. Doody, 2004.



TEI XML ENCODING

Figure 1.

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE TEI.2 SYSTEM 'teilight.dtd'>
3 <TEI.2>
4   <teiHeader>
5     <fileDesc>
6       <titleStmt>
7         <title>The case of Madam Mary Carleton, lately stiled the German Princess, truly
          stated with an historical relation of her birth, education, and fortunes; in an
          appeal to his illustrious Highness Prince Rupert. By the said Mary Carleton.</title>
8         <author>Mary Carleton</author>
9       </titleStmt>
10      <publicationStmt><p>printed for Sam: Speed at the Rainbow in Fleetstreet, and Hen:
          Marsh at the Princes Arms in Chancery-lane, London, 1663</p></publicationStmt>
11      <sourceDesc><p>Test file from EEBO-TCP</p></sourceDesc>
12    </fileDesc>
13  </teiHeader>
14  <text>
15    <front>
16      <div type="letter">
17        <opener>
18          <salute>TO HIS Most Illustrious Highness PRINCE RUPERT, Count Palatine of the Rhine,
            AND Duke of Cumberland, &amp;c.</salute>
19        </opener>
```

```
67 <p>This unexpected News was extremely surprising to Hyleus, who before was much fretted with
the sport he but just now came from, for his ill success in it. And is it so then, ye kind
Deities (cried <rs xml:id="Hyleus">he</rs> out) that <said type="direct" who="#Hyleus"
gender="masculine">my Myrtilla will thus freely put her self into my hands. I should never
deserve any success in my Love, should I neglect this happiness. Nor am I one of those
foolish foppish Lovers, who having laid siege to a Ladies Affections, then begin to throw of
all respect, when she begins to throw off all her cruelty, and when she is coming to answer
their expectations.</said> Then turning to Circe, <said type="direct" who="#Hyleus"
gender="masculine">Assure the divine Myrtilla from me, I will not fail to expect her, and am
only sorry that she ordered nothing more difficult, that she might see my Love in daring to
compass it; take this </said>(continued <rs ref="#Hyleus">he</rs> <said type="direct"
who="#Hyleus" gender="masculine">giving her a Piece, and then kissing her) and carry this
Kiss to thy Mistress, and assure her again I will not fail.</said></p>
```

Figure 2.

```
<lg type="syllogism">
<said type="direct" who="#A Logician" gender="unknown">
<l>No Politician is wise:</l>
<l>Every Knave is a Politician,</l>
<l>Therefore no Knave is wise.</l></said>
</lg>
```

Figure 3.

```
16 <div1 type="poem">
17 <head>TO THE DUCHESS OF NEWCASTLE, ON HER New Blazing-World. </head>
18 <lg type="stanza">
19 <l>OUR Elder World, with all their Skill and Arts,</l>
20 <l>Could but divide the World into three Parts:</l>
21 <l>Columbus, then for Navigation samed,</l>
22 <l>Found a new World, America it is named;</l>
23 <l>Now this new World was found, it was not made,</l>
24 <l>Only discovered, lying in Time's shade.</l>
25 </lg>
26
27 <lg type="stanza">
28 <l>Then what are You, having no Chaos found</l>
29 <l>To make a World, or any such least ground?</l>
30 <l>But your Creating Fancy, thought it fit</l>
31 <l>To make your World of Nothing, but pure Wit.</l>
32 <l>Your Blazing-World, beyond the Stars mounts higher,</l>
33 <l>Enlightens all with a Celestial Fire.</l>
34 </lg>
35
36 <byline>William Newcastle.</byline>
37 </div1>
```

Figure 4.

CATAGURISING TRANSITIVITY

Processes of Transitivity

Paul Simpson

- 1. Material Proceses
- 2. Mental Processes
- 3. Relational Processes
- 4. Verbal Processes

Total Hits: 50					
	File	KPF	Left Context	Hit	Right Context
1	CavendishS...	8:1	ng the cause of her sadness? She told her, That	she	had an extreme desire to converse with the soul
2	CavendishS...	8:1	such an horrible pain in her head, that although	she	had dissolved that World, yet she could not, with
3	CavendishS...	8:1	ruct her design, she sent for some of the Spirits	she	had formerly conversed withal, and inquired whe
4	CavendishS...	8:1	bservation amazed the Empress very much; for	she	had hitherto believed, That Snow was made by c
5	CavendishS...	8:1	one according to the Opinion of Epicurus; which	she	had no sooner begun, but the infinite Atoms mac
6	CavendishS...	8:1	ndeavoured to learn their language; which after	she	had obtained so far, that partly by some words
7	CavendishS...	5:1	of the chief Commanders, to let them know, that	she	was a great and powerful Princess, and came to

Figure 5.

```
91 print("dependency parse per sentence")
92 f = open(Path("/Users/nellwilkinson/Desktop/N8CIR /OCR/pronounKWIC/cavendish_fs_he.txt"))
93 n = 1 # for counting
94 # print(f.read())
95 for line in f:
96     print(line)
97     doc = nlp(line)
98     sentence_spans = list(doc.sents)
99     for sent in sentence_spans:
100         if not sent.text.strip():
101             continue
102         svg = displacy.render(sent, style="dep")
103         output_path = Path("/Users/nellwilkinson/Desktop/N8CIR /OCR/Cavendish_output_DP/outputCavendishHeFS" + str(n) + ".svg")
104         output_path.open("w", encoding="utf-8").write(svg)
105         print(n)
106         n = n + 1
```

Figure 6.

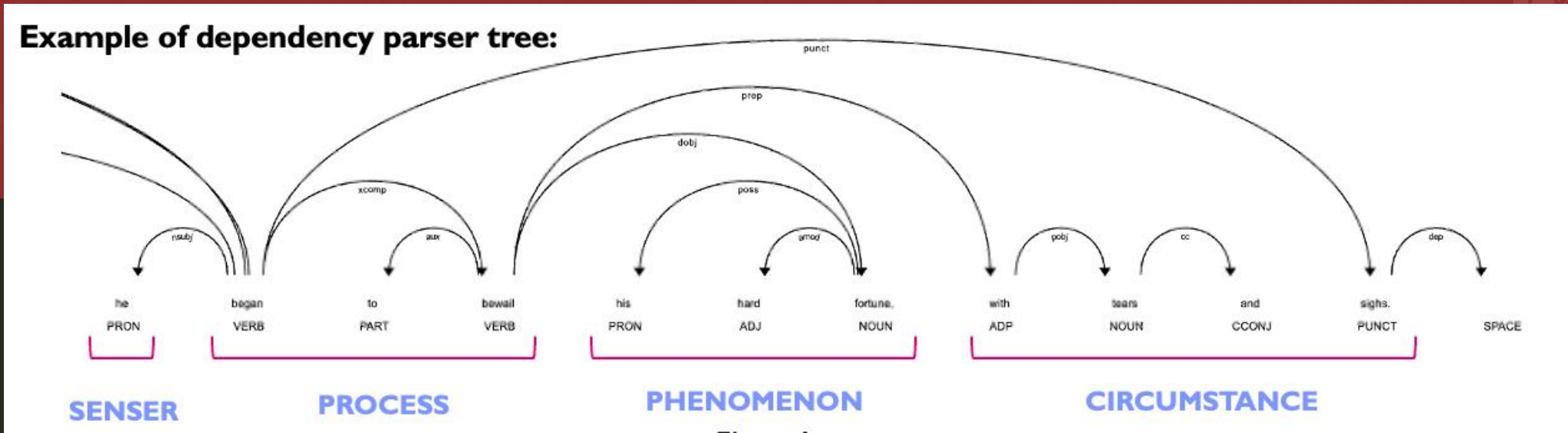


Figure 7.

Figure 7. Explained:

- The first PRON is the SENSER, “the conscious being that is perceiving reacting or thinking” (Simpson, 1993). The nsubj connected to the main verb.
- VERBPART VERB- verb phrase is the PROCESS. The dependency parser helps to identify the main verb.
- PRONADJ NOUN- is the PHENOMENON, “that which is perceived reacted to or thought about” (Simpson, 1993).
- 2020, spaCy: Industrial-strength Natural Language Processing in Python.

RESULTS

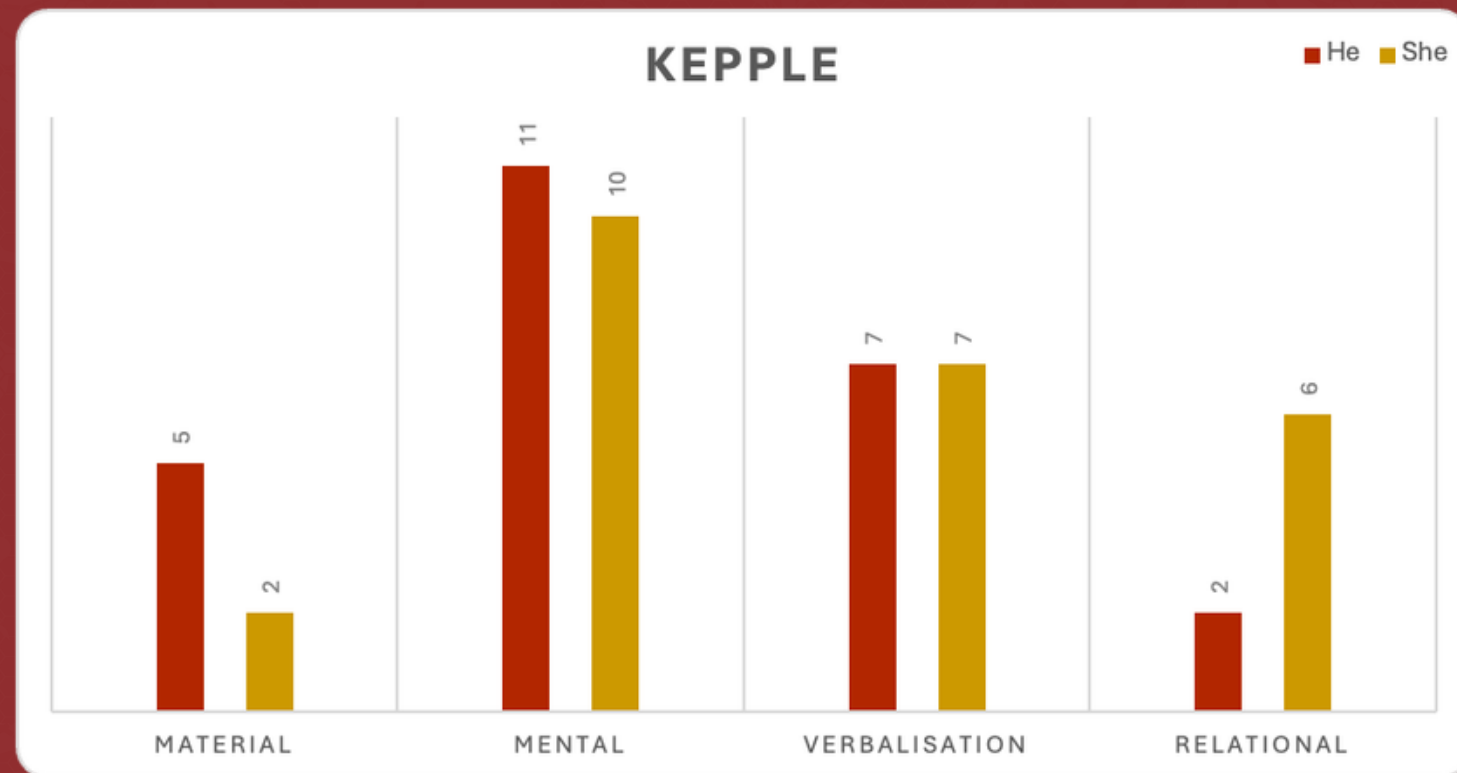


Figure 8.

Transitivity Process				
	Material	Mental	Verbalisation	Relational
Gendered Pronoun				
"He"	5	11	7	2
"She"	2	10	7	6

Table 1.

Material	He
Actor Man	4
Goal man	1
Neither	0
total	5

Table 2.

Material	She
Actor Woman	2
Goal man	0
Neither	0
total	2

Table 3.

Mental	He
Senser Man	7
Senser Other	4
Total	11

Table 4.

Mental	She
Senser Woman	8
Senser Other	2
Total	10

Table 5.

Verbalisation	He
Sayer Woman	5
Sayer Other	2
Total	7

Table 6.

Verbalisation	He
Sayer Woman	5
Sayer Other	2
Total	7

Table 7.

NOTE - There are the same amount of concordance lines for "he" and "she" - n = 25.



THANK
YOU
for Listening!

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