A Historical Development of Relatives in Modern British English—Part I

Kazuho Mizuno
(Received on May 10, 2000)

0. Introduction

The aim of the present study is to trace the historical development of the relative system in the Modern English Period. This aim naturally makes the study statistical in nature rather than theoretical, and for such a statistical survey, adequate samples are preferable. The samples are collected through searching an electronic corpus, the ARCHER (A Representative Corpus of Historical Registers) corpus. Studies on relatives or relative clauses are many; however, there is no single historical survey of the relative system in ModE. The author would be pleased if the present study contributes to the furtherance of the study of ModE.

The study consists of two parts: Part I and Part II. In Part I, this paper, we shall see a general background of relative clauses in English in both synchronic and diachronic terms. Then, the methodological issues are addressed, and finally the result of the over-all survey will be presented. In Part II we shall analyse in detail the data obtained and the study will be summarised and concluded.

1. Preliminary Sketch of Relative Clauses in English

This section will outline the properties of the relative clause in English both synchronically and diachronically. We shall, first, consider the characteris-
tics of relative clauses in Present-day English in 1.1. In 1.2, we shall proceed to glance at the standard account of the historical development of relative clauses.

1.1.1 Relative clauses in Present-day English

In English, relative clauses are a type of finite clauses acting as noun-phrase postmodifiers. The noun phrase modified by the relative clause is called the "head". Modification can be restrictive or nonrestrictive, so that we have restrictive relative clauses and nonrestrictive relative clauses. This distinction is important for quantitative studies, because "It is in the nonrestrictive relative clauses that ... the *wh*-series (*who, whom, which, whose*) are typically used" (Quirk et al. 1985: 1257). We will consider the differences between the two clause types in some detail in the next section. Other characteristics of relative clauses reflect the explicitness of relative clauses. This explicitness lies in the specifying power of the relative pronoun. Thus, the relative pronoun shows concord with the head, and indicates its function in the relative clause: subject, object, or (prepositional) complement, and so forth.

There are a number of relative markers that introduce the relative clause. Relative markers in Present-day English can be classified into *wh*-relatives and non-*wh* relatives: the former includes *who, whom, whose, which*; and the latter *that*, and zero relative. There would be two analyses possible concerning *that*. The first analysis, which has traditionally been held, is to capture *that* as a relative pronoun. The other analysis is to assume that *that* is a complementiser. The second analysis is now standard in the framework of generative grammar. Radford (1988: 482–85), for example, gives evidence against analysing *that* as a pronoun. *That* differs from the *wh*-series: (a) in not having gender marking, and thus being independent of the personal or nonpersonal character of the antecedent; (b) in not having an objective form
(like who/whom); (c) in not having a genitive (like whose of who and which), thus not being able to function as a constituent of an element in the relative clause. In this study, however, we will not go into the discussion of the status of that and include that as a relative.

1.1.2 Type of relative clause: restrictive vs. nonrestrictive relative clause
One of the most distinctive characteristics of English relative clauses is that between restrictive and nonrestrictive relative clause. Modification is restrictive when the head can be viewed as a member of a class which can be linguistically identified only through the modification that has been supplied. On the other hand, when the head NP can be viewed as unique or as a member of a class that has been independently identified, we call it nonrestrictive (Quirk et al.: 1239). Examples would be:

(1) The tall boy who is standing in the corner is John Smith. (Restrictive)

(2) The tall boy, who is a university student, is John Smith. (Nonrestrictive)

To be more precise, we find differences between restrictive relative clause and nonrestrictive relative clause in phonology (or orthography), semantics and syntax.

Nonrestrictive relatives are spoken with a separate intonation contour: they are marked off prosodically from the remainder of the sentence, whereas restrictive relatives are prosodically bound to their head. In writing, nonrestrictives are typically separated off from the remainder by comma, dashes or parentheses, though punctuation is not a completely reliable guide.

As briefly mentioned earlier, the semantic difference is of thematic meaning: in the nonrestrictive construction, the information encoded in the relative
clause is presented as separate from, and secondary to, that encoded in the remainder of the superordinate clause. In the restrictive construction, on the other hand, the information contained in the relative clause forms an integral part of the message conveyed by the larger construction. In example (1) the boy is only identifiable as John Smith if we understand that it is the particular boy who is tall, and who is standing in the corner. By contrast, in example (2) the information that the boy is a university student is not offered as an aid to identification of John Smith but just an additional piece of information. Here his tallness is the only information to identify the boy as John Smith.

Therefore, the noun phrases with the embedded relative clause of the two examples can be represented in the syntactic tree as follows:

(1')

```
(1')
     N
    /\  \
   D   N
  /    /\    \
 A   H(N) C
```

the tall boy who is standing in the corner

(2')

```
(2')
     N
    /\  \
   D   N
  /    /\    \
 A   H(N) C
```

the tall boy who is a university student
Note that the restrictive relative clause is applied before any determiner, whereas the nonrestrictive clause is applied after any determiner which independently identifies the head. Another syntactic difference between restrictive and nonrestrictive relative clauses is that the former can only have nominal heads, while the latter can have heads of various kinds, as illustrated with the following examples:

(3)  
   (a) *The cheese was bought by John which was fortunate.  
       (b) The cheese was bought by John, which was fortunate.

(4)  
   (a) *John luckily escaped which I unluckily didn't.  
       (b) John luckily escaped, which I unluckily didn't.

(5)  
   (a) *John answered the question politely which I thought was how he should have answered.  
       (b) John answered the question politely, which I thought was how he should have answered.  
       (The examples (3)—(7) are adopted from Fabb 1990)

The examples in (3) show that nonrestrictive relative clauses but not a restrictive relative clause can take a sentential antecedent as its head. Example (4) illustrates that a nonrestrictive relative clause but not a restrictive relative clause can take a verb phrase antecedent. In (5), the examples show that a nonrestrictive relative clause but not a restrictive relative clause can take a manner adverbial antecedent. It is also indicated that pied piping is more restricted in restrictive relative clauses than in nonrestrictive relative clauses. This means that restrictive relative clauses require a more limited range of expressions than non-restricted relative clauses. The examples are:

(6)  
   (a) *The man the mother of whom I met yesterday is a French speaker.  
       (b) The man, the mother of whom I met yesterday, is a French
Studies in the Humanities and Sciences, Vol. XXXI No. 1

speaker.

(7) (a) *The men some of whom I like arrived yesterday.
   (b) The men, some of whom I like, arrived yesterday.

1.2 The history of relatives in English

1.2.1 The development in ME and OE

In this section, we will trace the history of English relative clauses from the Old English period until the beginning of the Modern English period where our investigation commences. The following description is mainly based on Traugott (1992) and Fischer (1992).

There are two types of relativisers in OE: the indeclinable *be and the declinable se, seo, *æt. Alternatively, there may be no marker at all. There is a tendency that *be occurs more often with restrictive relative clauses and se, seo, *æt with nonrestrictive relative clauses.

The pronominal relativiser (se, seo, *æt) is normally inflected for the case of the relativised noun phrase and it may be followed by the particle *be. This relativiser occurs in poetry and prose of all periods. However, it is noticed that se *be is rare in poetry. There has been much debate over whether se is a demonstrative or a relativiser in any particular instance. The invariant particle *be occurs in prose and poetry from earliest OE on. There is a tendency for *be to be favoured over a pronominal relativiser if the head is singular and modified by a demonstrative. *be is also favoured when the head is modified by a quantifier. There are a few instances in OE of *æt used invariantly. The presence in OE of invariant *æt is of particular interest because that totally replaced *be in ME as the invariant relativiser.

The gradual loss of *be and the replacement of se, seo, *æt by indeclinable that collapsed the OE system of relativisers. *æt rapidly spread from the north to the other dialects, and in the thirteenth century that is the rule everywhere.
except southeastern and west midland texts, in which *pe* is found next to *pat*. Consequently, in the thirteenth century *that* stood as a relativiser which was used in restrictive as well as nonrestrictive clauses.

The use of *wh*-relatives dates from the beginning of ME, though rare everywhere in the twelfth and thirteenth century. *Which* is infrequent at first, whereas *whom* and *whose* are less so. *Which* begins to replace *that* only in the fifteenth century. In the fourteenth century, *that* is the usual relative, especially in poetry; in more formal prose, *which* is more popular. According to Mustanoja (1960: 197), Chaucer uses *that* in seventy five percent, while Caxton in fifty percent. Despite the early appearance of *whom* and *whose*, *who* occurs only sporadically until the fifteenth century. Thus, by the mid-sixteenth century, there are three relativisers available: that, *who* (*whom*, *whose*), and *which*.

Other characteristics of relativisers in ME would include *wh*-relatives + *that* forms and the *which*. *Wh*-relatives + *that* forms were popular all through the ME period but became rare by the end of the fifteenth century. The existence of *wh*-relatives + *that* forms is often taken as evidence to support the analysis that *that* is a complementiser not a pronoun. Since definiteness is essential to relativisation, it is quite reasonable for relativisers to be preceded by the definite article *the*. However, it is noticed here that the regular use of this construction is restricted to *which* only.

1.2.2 Relatives in ModE

EModE saw the preference of *wh*-relatives over *that*, especially in the Renaissance period, when the writers of the period tried to imitate the more elaborate and expressive style of Latin. Although *that* became common in the late seventeenth to eighteenth century again, the growth of *wh*-relatives continued, until the present usage was established.
Studies in the Humanities and Sciences, Vol. XXXI No. 1 (2)

Here I should like to indicate briefly the questions concerning the development of relatives in the Modern English period:

1. How did *wh*-relatives, *who* in particular, develop?

2. How did the nonrestrictive *that* and the personal *which* die out?

3. Were there any differences between the development of restrictive clauses and that of nonrestrictive clauses?

4. Were there any differences in the development according to the head parameters?

5. Were there any differences in the development according to the grammatical role of relatives?

In order to obtain answers to the questions, an examination of our corpus will be conducted.

2. Methodology of the Study

This section focuses on the methodological issues of this study. In 2.1, we shall consider linguistic variables or parameters which influence the derivation of relative clauses and set out linguistic variables which will be dealt with in this study. Then, in 2.2, we shall see the linguistic corpus upon which the present study is based.

2.1 Linguistic variables

There have been many historical studies on relatives or relative constructions: Rydén (1966), Dekeyser (1984), Rissanen (1984), Austin (1985) are among the most important in the Modern English period. It is assumed that if we
put together the outcomes of the previous studies, we could trace the history of the relative system. It is difficult, however, for such a procedure to trace the development systematically and in a satisfactory way, because, for the systematic study of the relative system, it is required to take into consideration several linguistic variables or parameters which influence the relativisation and describe the development in terms of the same criteria.

2.1.1 Type of clause: restrictive/nonrestrictive parameter

We have already seen in Chapter I differences between restrictive relative clauses and nonrestrictive relative clauses and we notice that the two clause types show quite different properties. Thus, it is necessary at the outset to make a clear distinction between restrictive and nonrestrictive clause types. In other words, it is not too much to say that studies carried out without a clear distinction of the restrictive/nonrestrictive clause type would be meaningless.

Let us see an example. In our investigation, the distribution of relatives in the eighteenth century is as follows:

<table>
<thead>
<tr>
<th></th>
<th>The distribution of relatives in the 18th century</th>
</tr>
</thead>
<tbody>
<tr>
<td>that</td>
<td>21.42%</td>
</tr>
<tr>
<td>which</td>
<td>41.74%</td>
</tr>
<tr>
<td>who(m)</td>
<td>20.81%</td>
</tr>
<tr>
<td>zero</td>
<td>16.03%</td>
</tr>
</tbody>
</table>

Table 1 indicates that in the eighteenth century, the most frequently occurring relative pronoun is which, followed by that and who(m), then zero. Notice the following two tables. This time the distribution of relatives is presented in terms of the restrictive/nonrestrictive parameter:
Table 2. The distribution of restrictive relatives in the 18th century

<table>
<thead>
<tr>
<th></th>
<th>that</th>
<th>which</th>
<th>who(m)</th>
<th>zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>18th</td>
<td>35.47%</td>
<td>25.35%</td>
<td>10.00%</td>
<td>29.18%</td>
</tr>
</tbody>
</table>

Table 3. The distribution of nonrestrictive relatives in the 18th century

<table>
<thead>
<tr>
<th></th>
<th>that</th>
<th>which</th>
<th>who(m)</th>
<th>zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>18th</td>
<td>4.29%</td>
<td>64.72%</td>
<td>33.99%</td>
<td>-</td>
</tr>
</tbody>
</table>

Tables 2 and 3, as we can see, show us not only a quite different distribution of relative pronouns from the total distribution, but also a different distribution with each other. In restrictive clauses, the most attested relative is *that*, whereas in nonrestrictive clauses it is *which*.

Most of the previous studies on relatives have carefully distinguished restrictive relative clauses from nonrestrictive clauses. However, according to Ball (1993: 2), the distinction is not necessarily made in in Ihalainen (1980), Beaman (1984) and so forth. The present study will distinguish the two clause types.

2.1.2 Type of head and grammatical role of the relative pronoun

Types of head and grammatical role of the relative pronoun affect the choice of relatives as well. As mentioned in Chapter I, relative pronouns may have gender concord. In Present-day English, the *wh*-relatives have gender concord: *who(m)* occurs with a personal head, whereas *which* does with nonpersonal heads. In the historical study of the relative system, we need to pay a careful attention to this personal/nonpersonal parameter, because, besides *who(m)*, *which* was once able to occur with both personal and nonpersonal heads.
Kazuho Mizuno: A Historical Development of Relatives 
in Modern British English—Part I

In addition to the gender concord, the relative pronoun also indicates its function as subject, object, (prepositional) complement, and so forth in the clause. Keenan and Comrie (1977) propose the following hierarchy of relativisation:

\[
S > DO > ID > OBL > GEN > OCOMP
\]

- S: subject
- DO: direct object
- ID: indirect object
- OBL: major oblique NP
- GEN: genitive
- OCOMP: object of comparison

Keenan and Comrie demonstrate that the relative clause formation follows this hierarchy, which is called the Accessibility Hierarchy. The scale shows the higher the position in it, the more accessible it is to relativisation. In other words, subjects are more accessible to relativisation than other grammatical roles of the relative pronoun. Then, it will be questioned whether the accessibility hierarchy has worked nicely in any stage of the development of the relative system.

It is usual that the two above-mentioned linguistic variables (personal/nonpersonal parameter; and grammatical role of the relative pronoun) are taken into consideration in any investigation on the relative pronoun. However, as Ball states, "it is not widely recognised that type of antecedent and grammatical role together exert a powerful effect on the choice of relative marker, although this fact was amply demonstrated (for educated spoken British English) by Quirk’s 1957 study ..." (Ball 1993: 4). The following summary by Ball of Quirk’s study clearly shows the importance of the data presentation with an appropriate classification. She maintains that “the overall frequency of relative markers for any such sample will depend on the relative proportions of RRIs of each type, and therefore an average will be meaningless” (Ibid.: 5).
Table 4. Quirk 1957, Restrictive Relative Makers in Educated Spoken BrE

<table>
<thead>
<tr>
<th>Type</th>
<th>Restrictive Relative Makers</th>
<th>Tokens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genitive</td>
<td>WH (100%)</td>
<td>6</td>
</tr>
<tr>
<td>Personal Sbj</td>
<td>WH (91%) &gt; TH (9%) &gt; O (.45%)</td>
<td>222</td>
</tr>
<tr>
<td>Non-pers Obj-PP</td>
<td>WH (53%) &gt; O (26%) &gt; TH (21%)</td>
<td>146</td>
</tr>
<tr>
<td>Non-pers Sbj</td>
<td>TH (52%) &gt; WH (48%) &gt; O (.33%)</td>
<td>304</td>
</tr>
<tr>
<td>Pers Obj-PP</td>
<td>WH (38%), O (31%), TH (31%)</td>
<td>13</td>
</tr>
<tr>
<td>Pers Obj</td>
<td>WH (34%), O (34%), TH (31%)</td>
<td>32</td>
</tr>
<tr>
<td>Non-pers Obj</td>
<td>O (40%) &gt; TH (39%) &gt; WH (21%)</td>
<td>344</td>
</tr>
<tr>
<td>Predicate Compl.</td>
<td>O (57%) &gt; TH (43%)</td>
<td>14</td>
</tr>
<tr>
<td>P-less Adjunct</td>
<td>O (76%) &gt; TH (24%)</td>
<td>37</td>
</tr>
<tr>
<td>Mean</td>
<td>WH(47%)&gt;TH(33%)&gt;O(20%)</td>
<td>1118</td>
</tr>
</tbody>
</table>

(from Ball 1993: 5)

The present study will be concerned with not only the respective effects of 'type of head' and 'grammatical role of the relatives' on relativisation but also the combinatory effect of the two parameters on relativisation.

2.1.3 Other variables

The three linguistic variables mentioned in the previous section are those that have a powerful effect on the choice of the relative pronoun. Besides them, there are some variables concerning relativisation. There are studies in which the effects of various head types on relatives are demonstrated. Rydén (1966) investigates the distribution of relatives according to types of head: which relative follows quantifiers (all, every(thing), any(thing), no(nothing)); same; that; those; superlatives; and so forth? In Rissanen (1984), attention is called to various relative constructions: when the head is a clause or a verb phrase; relative pronoun + adverbial clause; distanced relative clause and so forth. Furthermore, Quirk (1957) identifies other properties of relative clauses themselves: the position of the relative clause in the matrix clause (medial or final);
and distance from the head (adjacent to the head or distanced).

For the present study, the following five linguistic variables or parameters are chosen and the samples are classified and analysed in terms of them:

1. Type of relative clause (restrictive vs. nonrestrictive)
2. Type of head (personal vs. nonpersonal)
3. Grammatical role in the relative clause
4. Distance from the head
5. Position of relative clause in the matrix clause

2.2 The corpus

The corpus used in the present study is a part of A Representative Corpus of Historical Registers (the ARCHER Corpus) which has been compiled by Douglas Biber (Northern Arizona University) and Edward Finegan (University of Southern California). The purpose of the ARCHER corpus is "to enable analysis of historical change in the range of written and speech-based registers of English from 1650 to the present. The general design goal has thus been to represent as wide a range of variation as possible" (Biber et al. 1994: 3). The corpus has not been completed yet, but the complete corpus will be made up of c. 1,000 texts and c. 1.7 million words and is expected to fill the gap between the corpora of Present-day English and the Helsinki Corpus of English Texts. The structure of the completed version of the ARCHER corpus is as follows:
Table 5. General design of the ARCHER corpus

<table>
<thead>
<tr>
<th>Time-span covered:</th>
<th>1650–1990, divided into 50 year periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialects covered:</td>
<td>British and American</td>
</tr>
<tr>
<td>Genres/Registers:</td>
<td>Seven Written Categories: journals/diaries, personal letters, fiction prose, news reportage, legal opinions, medical prose, scientific prose</td>
</tr>
<tr>
<td></td>
<td>Four Spoken Categories: drama, fiction dialogue, sermons, courtroom testimony</td>
</tr>
<tr>
<td>Target Sampling:</td>
<td>10 texts, at least 2,000 words, per genre (and dialect) in each period. A full sampling for a genre includes 100 texts:</td>
</tr>
<tr>
<td></td>
<td>1650–1699, British: 10 texts</td>
</tr>
<tr>
<td></td>
<td>1700–1749, British: 10 texts</td>
</tr>
<tr>
<td></td>
<td>1750–1799, British: 10 texts; American: 10 texts</td>
</tr>
<tr>
<td></td>
<td>1800–1849, British: 10 texts</td>
</tr>
<tr>
<td></td>
<td>1850–1899, British: 10 texts; American: 10 texts</td>
</tr>
<tr>
<td></td>
<td>1900–1949, British: 10 texts</td>
</tr>
<tr>
<td></td>
<td>1950–1990, British: 10 texts; American: 10 texts</td>
</tr>
</tbody>
</table>

The search of the ARCHER corpus was artificially limited in the present study for the following reasons:

1. Since the aim of this study is to trace the development of relatives in written British English, texts of spoken categories, texts of American English and texts of the incomplete category (legal opinions in written categories) have been excluded. In other words, the search was done on British texts of six written categories (journals/diaries, personal letters, fiction prose, news reportage, medical prose, and scientific prose).
2. The present version of the ARCHER is not the grammatically-tagged version, so that a manual search was required for the zero relative. To further shorten the procedure, I decided to reduce the number of texts for searching to one-fourth of the whole texts in the six written categories. Furthermore,
as the number of samples obtained is still large, a half of the samples are selected for the analysis.

3. Overall Survey

In this way, 1,248 relative pronouns were obtained in all. The table below is the overall frequencies of relatives in our corpus:

Table 6. The overall frequencies of relatives in the corpus

<table>
<thead>
<tr>
<th></th>
<th>that (r)</th>
<th>which (r)</th>
<th>who (r)</th>
<th>whom (r)</th>
<th>zero (r)</th>
<th>Total (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th c.</td>
<td>47</td>
<td>32</td>
<td>2</td>
<td>3</td>
<td>25</td>
<td>109</td>
</tr>
<tr>
<td>18th c.</td>
<td>99</td>
<td>74</td>
<td>25</td>
<td>6</td>
<td>99</td>
<td>303</td>
</tr>
<tr>
<td>19th c.</td>
<td>49</td>
<td>150</td>
<td>26</td>
<td>9</td>
<td>49</td>
<td>283</td>
</tr>
<tr>
<td>Total (r)</td>
<td>195</td>
<td>256</td>
<td>53</td>
<td>18</td>
<td>173</td>
<td>695</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>that (nr)</th>
<th>which (nr)</th>
<th>who (nr)</th>
<th>whom (nr)</th>
<th>Total (nr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th c.</td>
<td>12</td>
<td>81</td>
<td>28</td>
<td>6</td>
<td>127</td>
</tr>
<tr>
<td>18th c.</td>
<td>12</td>
<td>142</td>
<td>77</td>
<td>12</td>
<td>243</td>
</tr>
<tr>
<td>19th c.</td>
<td>2</td>
<td>124</td>
<td>51</td>
<td>6</td>
<td>183</td>
</tr>
<tr>
<td>Total (r)</td>
<td>26</td>
<td>347</td>
<td>156</td>
<td>24</td>
<td>553</td>
</tr>
<tr>
<td>Total (r+nr)</td>
<td>221</td>
<td>603</td>
<td>209</td>
<td>42</td>
<td>173</td>
</tr>
</tbody>
</table>

r: restrictive use; nr: nonrestrictive use

Here we have to be careful in the treatment of the number of relatives, because, although each text in the six written categories is basically of some 2,000 words, in my calculation, I found the number of words in the texts varies to a large extent. The shortest one is a text of 121 words (a text in the letter category) and the longest is of 10,461 words (a text in medical prose), which prompts me to check the makeup of the texts in our corpus. The result is in the following:
Table 7. The number of words in the texts in our corpus

<table>
<thead>
<tr>
<th></th>
<th>Fiction</th>
<th>News</th>
<th>Medical</th>
<th>Scientific</th>
<th>Journal</th>
<th>Letters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th c.</td>
<td>8,665 (3)</td>
<td>6,553 (3)</td>
<td>2,180 (3)</td>
<td>6,332 (3)</td>
<td>6,442 (3)</td>
<td>3,095 (6)</td>
<td>33,267 (21)</td>
</tr>
<tr>
<td>18th c.</td>
<td>27,666 (6)</td>
<td>10,853 (5)</td>
<td>6,845 (5)</td>
<td>10,507 (5)</td>
<td>11,033 (5)</td>
<td>7,615 (16)</td>
<td>74,519 (42)</td>
</tr>
<tr>
<td>19th c.</td>
<td>25,803 (5)</td>
<td>11,504 (5)</td>
<td>20,298 (5)</td>
<td>10,658 (5)</td>
<td>11,649 (5)</td>
<td>6,375 (13)</td>
<td>86,287 (38)</td>
</tr>
<tr>
<td>Total</td>
<td>62,134 (14)</td>
<td>28,910 (13)</td>
<td>29,323 (13)</td>
<td>27,497 (13)</td>
<td>29,124 (13)</td>
<td>17,085 (35)</td>
<td>194,073 (101)</td>
</tr>
</tbody>
</table>

The numbers in ( ) are the number of the texts in each text type and each period.

As we can see, the number of words in the columns differs to a great extent. Thus, we understand that the raw frequencies of relatives are not comparable with each other. In order to solve this problem and to make the frequencies useful in our analysis, I decided to present the distributions of relatives as frequencies per 5,000 words. The expression of the result in this manner has been used among researchers working electric corpora, for instance, Biber and Finegan (1988). In this way, we get the following revised distributions of relatives, which enables us to compare and analyse them in a more precise way:
Table 8. The revised overall frequencies of relatives in the corpus (the estimated number of relatives per 5,000 words)

<table>
<thead>
<tr>
<th></th>
<th>that (r)</th>
<th>which (r)</th>
<th>who (r)</th>
<th>whom (r)</th>
<th>zero (r)</th>
<th>Total (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th c.</td>
<td>108.14</td>
<td>56.27</td>
<td>2.31</td>
<td>3.83</td>
<td>61.54</td>
<td>232.09</td>
</tr>
<tr>
<td>18th c.</td>
<td>91.50</td>
<td>65.39</td>
<td>21.78</td>
<td>3.12</td>
<td>75.26</td>
<td>257.05</td>
</tr>
<tr>
<td>19th c.</td>
<td>43.41</td>
<td>106.79</td>
<td>18.68</td>
<td>6.58</td>
<td>35.09</td>
<td>210.55</td>
</tr>
<tr>
<td>Total (r)</td>
<td>243.05</td>
<td>228.45</td>
<td>42.77</td>
<td>13.53</td>
<td>171.89</td>
<td>699.69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>that (nr)</th>
<th>which (nr)</th>
<th>who (nr)</th>
<th>whom (nr)</th>
<th>Total (nr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th c.</td>
<td>27.71</td>
<td>133.18</td>
<td>45.74</td>
<td>10.54</td>
<td>217.17</td>
</tr>
<tr>
<td>18th c.</td>
<td>9.08</td>
<td>130.51</td>
<td>63.07</td>
<td>7.49</td>
<td>210.15</td>
</tr>
<tr>
<td>19th c.</td>
<td>0.88</td>
<td>89.93</td>
<td>34.56</td>
<td>2.91</td>
<td>128.28</td>
</tr>
<tr>
<td>Total (r)</td>
<td>37.67</td>
<td>353.62</td>
<td>143.37</td>
<td>20.94</td>
<td>555.60</td>
</tr>
<tr>
<td>Total (r+nr)</td>
<td>280.72</td>
<td>582.07</td>
<td>186.14</td>
<td>34.47</td>
<td>1255.29</td>
</tr>
</tbody>
</table>

r: restrictive use; nr: nonrestrictive use

Table 9 and Figure 1 show the overall distribution of relative pronouns in our corpus. Note that the distributions of relatives are always expressed as figures per 5,000 words hitherto.

Table 9. The overall distribution of relatives

<table>
<thead>
<tr>
<th></th>
<th>that</th>
<th>which</th>
<th>who</th>
<th>zero</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th c.</td>
<td>135.85</td>
<td>189.45</td>
<td>62.42</td>
<td>61.54</td>
<td>449.26</td>
</tr>
<tr>
<td>18th c.</td>
<td>100.58</td>
<td>195.90</td>
<td>95.46</td>
<td>75.26</td>
<td>467.20</td>
</tr>
<tr>
<td>19th c.</td>
<td>44.29</td>
<td>196.72</td>
<td>62.73</td>
<td>35.09</td>
<td>338.83</td>
</tr>
</tbody>
</table>

— 93 —
The numbers under Total reveal that the employment of relatives decreases in the nineteenth century. This decrease is caused by the decrease of non *wh*-relatives, that is, *that* and *zero*. The shift of the distribution over the periods supports the general account that *wh*-relatives are preferred to *that* in ModE. In the Part II of this study, we will look in detail at the shift in usage of relative pronouns according to the linguistic variables or parameters we set out in section two above.

References:


