The inflected genitive and the of-construction: A comparative corpus study of written East African, Indian, American and British English
Abstract
This quantitative corpus study discusses and compares the distribution of the inflected genitive (‘s- or zero-genitive) with that of the of-construction in East African, Indian, American and British English using data collected from the ICE-EA, ICE-IND, Frown and FLOB corpora. This study also discusses the semantic categories of the inflected genitive in the varieties mentioned.

The first conclusion of the study is that the distribution of tokens according to semantic categories is similar in all varieties examined. Furthermore, it is concluded for the modifier classes that animateness-biased classes are more common with the inflected genitive, while inanimateness-biased classes are more common with the of-construction; this distribution is similar in all varieties.

Keywords: corpus study, ’s-genitive, inflected genitive, of-construction, semantics, ICE-EA, ICE-IND, Frown, FLOB, East African English, Indian English, British English, American English.
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1. Introduction

The genitive, historically a part of the English case system, is a topic that has been thoroughly discussed among linguists. Several scholars who study variation in language have compared the use of the genitive ’s- or zero-inflection to the phrasal construction with of. These variants, preceding more detailed discussions, can be seen in (1), (2) and (3).

(1) Hannah’s car
(2) The boys’ cars
(3) The national anthem of Sweden

Quirk et al. (1985:322-323) mention that “generally speaking, the genitive is favoured for classes which are highest on the gender scale, i.e. ‘personal’ nouns (particularly those referring to human beings and higher animals) and collective nouns with personal gender characteristics”. Thus, since animateness appears to be a determining factor in the choice between the ’s-/zero-inflection (henceforth the inflected genitive) and the construction with of (henceforth of-construction) it is one of the factors examined in this study.

Even though many studies have examined the variation in use between the genitive with the inflected genitive and the of-construction in for instance British (henceforth, BrE) and American English (henceforth, AmE), there are, however, no studies of this variation in East African (henceforth, EAE) and Indian English (henceforth, InE). Hence, this quantitative corpus study compares the occurrence of the of-construction and the inflected genitive in these varieties with that in BrE and AmE, and will hopefully provide new insights into the use of the English genitive and the of-construction in these varieties of English.

2. The problem

This section contains the aim of this study and the hypotheses used.

2.1 Aim

This study examines the use of the genitive in EAE, InE, AmE and BrE compared to each other with focus on two possible realisations, the inflected genitive and the of-construction. Data from a corpus of EAE (Kenyan and Tanzanian English), the ICE-EA, an Indian corpus, the ICE-IND, an American corpus, the Frown (Freiburg-Brown) and a British corpus, the
FLOB (Freiburg-LOB) are compared.

2.1.1 Scope
To ensure that data is collected from all corpora using the same methods, this study does not rely on data from other studies for the comparison between the mentioned varieties.

There is no examination of spoken data in this study. One reason for this is that not all of the corpora examined contain spoken data. Furthermore, there is a need to narrow down the study so that the data becomes manageable; analysing the use of the genitive in spoken English in the mentioned varieties would yield enough data for a separate study.

Furthermore, this study does not include a diachronic perspective. The corpora that are used are all close in time; they contain data from the 1990’s. However, in order to study the inflected genitive and the of-construction, a short description of the historical development of these forms is needed. Altenberg (1982) and Quirk et al. (1985) provide information about this.

In order to determine the variables to study and compare, the theoretical discussion looks at the results and methods used in other studies of the inflected genitive and the of-construction like Dahl (1971), Jucker (1993) and Kreyer (2003).

Based on the conclusions drawn in the theoretical discussion, the main variable of comparison between the varieties and forms in this study is:

- the semantic classes of the modifiers (using Jucker’s (1993) categorisation into ten semantic classes)

A secondary variable of comparison is:

- the semantic categories of meaning of the tokens with the inflected genitive (using Kreyer’s (2003) nine categories of genitive meaning).

The main reason for excluding the semantic categories of the tokens with the of-construction is that there is no clear framework to base a study of this on; examples in Kreyer’s (2003) study are only of the inflected genitive. A secondary reason for this exclusion is scope limitation in order to make the data more manageable. Comparing the distribution of the
inflected genitive with the of-construction in this respect would be an interesting topic for another study if adequate criteria for classification were specified.

The term modifiers in this study refers to the modifiers before the apostrophes in the case of the inflected genitive, or the modifiers after of in the case of the of-construction. As Stefanowitsch (2003:413) puts it:

> English has two nominal modification constructions that are traditionally referred to as genitives: one where the modifier is morphologically marked with the possessive clitic -’s [or only the apostrophe for the zero-inflected genitive] and precedes the head noun, and one where the modifier is syntactically marked by the preposition of and follows the head noun.

In this study, the term tokens refers to the entire string of words that constitute a genitive or an of-construction. The semantic categories of meaning are discussed further in Section 3.3 and the semantic classes of modifiers are discussed in Section 3.4.

### 2.2 Hypotheses

As mentioned above, it has been claimed (e.g. by Quirk et. al. (1985)) that the choice between the different realisations, i.e. the inflected genitive and the of-construction, is influenced by the animateness of the modifier and that inanimateness favours the of-construction, while animateness favours the inflected genitive. This provides the background for the first hypothesis of this study, that:

- in the case of the inflected genitive, modifiers that belong to classes seen as animate are more common than modifiers in classes seen as inanimate, and that the opposite situation applies in the case of the of-construction.

Furthermore it is hypothesized that:

- this is true for all the varieties examined, i.e. we hypothesize that there is little variation between the varieties of English examined in this respect.

Since the semantic categories of meaning are also examined in this study, the second main hypothesis is that:
the distribution of inflected genitives according to categories of meaning is similar in all the varieties of English examined.

3. Theoretical background
In order to examine the of-construction and the inflected genitive in the varieties of English mentioned a theoretical framework is needed in order to sort the data from the corpora. This section discusses previous studies and descriptions of the genitive and assists the identification of the aspects from which the tokens found in the data are studied.

3.1 The history of the inflected genitive and the of-construction
Altenberg (1982) discusses the syntactic variation between the inflected genitive and the of-construction in his book about these realisations in 17th century English. Historically, the inflected genitive was the main variant compared to the of-construction. As Altenberg (1982:12) puts it, initially, “OF was primarily restricted to certain adverbial uses”. During the latter part of the Old English period, however, two processes that were to change the relationship between the two forms started. Inflections were reduced while the word-order became more strict. Consequently, free functional elements such as prepositions started to play a more significant role in the language, and a general reduction of the case system followed.

Altenberg (1982:13) states that the process went to the point where the genitive singular was close to extinction. However, this did not happen since the two forms were divided in function; the inflected genitive acted as a premodifier, while the of-construction acted as a postmodifier. Still, this division of functions did not become solid but, in spite of the attraction towards different functions, the variants retained flexibility in functions. This was the case during the Middle English period, and, evidently, it still is today.

As Quirk et al. (1985:318) point out it is questionable if the genitive should be regarded as a grammatical case in present English, but rather be seen as a remnant of the case-system. However, since the main focus of this study is to examine regional variation in the use of the two realisations, this question need not be discussed further.
3.2 Forms
Quirk et al. (1985:320) describe two forms of the inflected genitive. If it is in the plural it always takes a zero ending as we can see in (4), unless it is an irregular plural like *mice*, shown in (5).

(4) The cats’ food
(5) The mice’s misfortunes

However, some words in the singular also take the zero-ending. Referring to this category of words, Quirk et al. (ibid.) mention singular words that end in a sibilant (i.e. hissing consonant s- and sh- sounds) and sort them into subcategories. E.g. singular words that end in /z/ or words occurring in some fixed expressions like e.g. “for goodness’ sake” take the zero-genitive.

The form of the *of*-construction is less complicated since it is always expressed in the same way, as shown in (6) and (7), regardless of the regularity or irregularity of the modifier.

(6) The food of the cats
(7) The misfortunes of mice

3.3 Semantic categories
It is obvious that all genitives do not express the same meaning. E.g. if a store has the name *women’s clothes* the meaning of the expression is not that the store sells clothes that are owned by women, but rather that these clothes are made to be worn by women. Consequently, this shows that it is possible to divide genitive tokens into categories depending on what meaning they express.

Quirk et al. (1985:321-322) divide the inflected genitive and the *of*-construction into eight semantic categories. Shown with some of the examples Quirk et al. (ibid.) present, these are:

**Possessive genitives**
- *My wife’s father* – My wife has a father.
- *The gravity of the earth* – The earth has (a certain) gravity.

**Subjective genitives**
- *The boy’s application* – The boy applied for [something].
The decline of trade – Trade declined.

Objective genitives
The boy’s release – (...) released the boy.
A statement of the facts – (...) stated the facts.

Genitives of origin
The general’s letter – The general wrote a letter.
The wines of France – France produces wines.

Descriptive genitives
A women’s college – a college for women
The degree of doctor – a doctoral degree, a doctorate

Genitives of measure
ten days’ absence – The absence lasted ten days.
an absence of ten days – The absence lasted ten days.

Genitives of attribute
The victim’s courage – The victim had courage / was courageous.
The policy of the party – The party has a (certain) policy.

Partitive genitives
the baby’s eyes – The baby has (blue) eyes.
the surface of the earth – The earth has a (rough) surface.

However, Quirk et al.’s (ibid.) definitions of these categories are not clear, since they are merely “shown by sentential or phrasal analogues” (Quirk et al. 1985:321). Clearly defined criteria are needed in order to sort data into categories.

Shumaker (1975) also aims at sorting genitives into categories of meaning and presents her categories by showing a sample token from each category and a phrasal analogue, preceding discussion. She also includes possessive pronouns in her study. Her categories, gathered from her samples for discussion, are:

Zunser’s hymn ‘the hymn that Zunser produced’
Their advice ‘they advised’
Her amazement ‘someone amazed her’
Her tormentors ‘the ones who torment her’
Their Hebrew lesson ‘the Hebrew lesson that they study’
His abruptness ‘he is abrupt’
Miss Taylor’s coffee break ‘the break Miss Taylor spent drinking coffee’
Halsey’s grocery ‘the grocery that Halsey owns’
Her patient’s closet ‘the closet that her patient uses’
Hazel’s head ‘the head is a part of Hazel’
Your PTA ‘the PTA of which you are a member’
Esteban’s doctor ‘the doctor of whom Esteban is a patient’
Detroit’s long cold streets ‘the long cold streets in Detroit’
Miscellaneous ‘The X that Y exhibits’

(Shumaker 1975:73-80)
An apparent disadvantage of Shumaker’s (1975) system is that she does not give her example categories names that explain their content. Thus, her categorisations are not practical to use in this study because of the detailed considerations needed to categorise tokens (consequently, categorisation would be too time-consuming).

Kreyer (2003:178) points out that “the most obvious weakness of Quirk et al.’s system is that different genitive types have the same paraphrase [...] possessive, attributive and partitive genitives are all paraphrased by ‘X has Y’”. He sorts genitive meanings into nine categories, based on Quirk et al.’s (1985) system, but with his and Shumaker’s (1975) considerations taken into account (his system is based on Shumaker (1975) but is easier to read and use for categorisation). Kreyer’s (2003) nine categories are:

1. **X is kin to Y (Kinship)**
   Peter’s father – Peter is kin to his father

2. **X has (a/..) Y (Possessive)**
   Peter’s car – Peter has a car

3. **Y is part of X (Partitive)**
   Hazel’s head – The head is a part of Hazel

4. **X Verb (Y) (Subjective)**
   Her parents’ consent – Her parents consented

5. **[someone] Verb (Y) X (Objective)**
   The boy’s release – [someone] released the boy

6. **X has Y at their disposal, X makes use of Y (Disposal)**
   Peter’s doctor – Peter has the doctor at his disposal

7. **(the) Y in X, (the Y for X), ... (Time & Space)**
   Detroit’s cold streets – the cold streets in Detroit
   Tomorrow’s weather – the weather for tomorrow

8. **X is Adj (Y) (Attribute)**
   The victim’s courage – the victim is courageous

9. **X produces/tells/writes... Y (Origin)**
   The general’s letter – the general wrote a letter

(Kreyer 2003:178)

In this study, the categorisation provided by Kreyer (2003) is used for the examination of this aspect of the inflected genitive. The tokens are sorted into his nine categories in order to determine if there are any regional differences in their distribution according to the semantic categories.

Using Kreyer’s (2003) categorisation model is motivated by the fact that it makes categorisation easier than other models do, mainly due to the formulae expressed (e.g. X Verb
(Y) for the subjective category) along with descriptions.

3.4 Lexical factors

It has been claimed by several scholars (e.g. Jucker (1993) and Dahl (1971)) that the lexical class of the modifier influences the choice of construction, i.e. that animate words (words for living items) favour the inflected genitive, while inanimate words (words for non-living items) tend to favour the of-construction. These classes could be called categories, but in order to distinguish them from the semantic categories of the entire expressions they are referred to as classes.

Dahl (1971:143) conducts her examination of the inflected genitive v. the of-construction in newspaper style by taking “the meaning of the inflected word [...] as the basis for classification”. She defines 15 lexical classes. These are:

- nouns denoting collective communities [Parliament, council]
- names of continents, countries, towns and other areas [Australia, London]
- other nouns denoting geographical concepts [world, country, city, island]
- s-genitives before superlatives [the world’s most travelled spaceman]
- names of animals [parrot, dolphin]
- means of locomotion and machines [car, aeroplane]
- the sun, the planet and their satellites [earth, planet, moon]
- buildings and places [sanatorium, museum]
- newspapers and periodicals [magazine, The Observer]
- abstract nouns [Gospel, operation, war]
- currencies [pound, dollar, sterling]
- material nouns and concrete things [copper, weapon, pill]
- idiomatic expressions [heart(‘s desire)]
- expressions of time and measure [last week, millions]
- attributive nominal word-groups in junctional function [party office, aviation history]

Dahl (1971:143-165)

Her classes are also used by Aronsson (1975) and Jahr (1981) in their studies. Jahr (1981)
adds several subclasses, but stays with Dahl’s (1971) main classes in order to compare her results with Aronsson’s (1975).

Quirk et al. (1985:314) present a gender-scale containing eight animate gender classes and one inanimate gender class, dividing the animate gender classes into two groups, a personal group and a non-personal group. However, these groups are not suitable to use for the classification of modifiers in this study, since they, firstly, intertwine to some extent, and secondly, regard inanimate as a class without sub-classes.

Kreyer (2003:173) points out that there are ambiguities in Quirk et al.’s (1985) classification method because “some inanimate nouns show collective as well as inanimate characteristics” and concludes that “the distribution of genitive and of-construction seems to be best explained by Quirk et al.’s gender scale with slight modifications along the lines of Dahl’s (1971) findings” (Kreyer, 2003:174). Consequently, he constructs four subclasses of inanimate nouns: inanimate semi-collective nouns, inanimate personified nouns, inanimate nouns of time and measure and inanimate non-personal nouns.

As Jucker (1993:125) points out, the most common lexical factor is related to the prescriptive rule “to use the [inflected] genitive for persons and the of-construction for all the others with a few exceptions that can take either the [inflected] genitive or the of-construction”. The method used by Jucker (1993) is to divide the lexical modifiers into ten semantic classes. These classes are:

<table>
<thead>
<tr>
<th>Pronoun (PRO)</th>
<th>she, we, they</th>
</tr>
</thead>
<tbody>
<tr>
<td>(actual forms: her, our, their or her, us, them)</td>
<td></td>
</tr>
<tr>
<td>Personal name (PNA)</td>
<td>Elaine, Tony Blair</td>
</tr>
<tr>
<td>Personal noun (PNO)</td>
<td>woman, husband</td>
</tr>
<tr>
<td>Collective noun (COL)</td>
<td>government, police</td>
</tr>
<tr>
<td>Animal noun (ANI)</td>
<td>Fido, dog</td>
</tr>
<tr>
<td>Geographical noun (GEO)</td>
<td>London, England</td>
</tr>
<tr>
<td>Noun denoting location (LOC)</td>
<td>world, land</td>
</tr>
<tr>
<td>Noun denoting time (TIM)</td>
<td>year, [M]onday</td>
</tr>
<tr>
<td>Abstract noun (ABS)</td>
<td>freedom, competence</td>
</tr>
<tr>
<td>Concrete noun (CON)</td>
<td>roof, bike</td>
</tr>
</tbody>
</table>
This study uses Jucker’s (1993) classes of modifiers to compare the distribution of the inflected genitives and the *of*-construction and to identify possible variations between the four varieties of English examined. An advantage of Jucker’s (1993) classes is that ambiguous tokens that could be seen as either animate or inanimate can be placed in a class, and one can still see if there is a tendency towards animateness or inanimateness due to the nature of the classes. Another advantage of Jucker’s (1993) classification system is that it contains fewer classes than e.g. Dahl’s (1971), which can make classification easier.

### 3.5 Syntactic and other factors

Jucker (1993:127) mentions that there are cases when only one option exists in the choice between the inflected genitive and the *of*-construction, since the other choice would make the construction seem odd or ungrammatical. Here one has the choice of removing the cases when there is only one possible alternative (or at least only one that sounds correct). In this study such tokens are not omitted since the focus is on variation between varieties. Moreover, there is a possibility that something odd and infrequent in one variety might occur frequently in another one; albeit unlikely it is a possibility that cannot be ignored.

### 3.6 Interim summary

As this section has shown, several methods have been used to sort, categorise and classify inflected genitives and *of*-constructions. The most significant ones are to sort tokens according to the lexical class of the modifier and to categorise them according to the category of meaning of the expression as a whole.

Firstly, there is the classification of the lexical modifiers as *animate* or *inanimate*. However, in order to get a more accurate view of the distribution of inflected genitives and *of*-constructions, given the fact that some words cannot simply be classified as animate or inanimate, more classes are needed. This study utilises Jucker’s (1993) classes of lexical modifiers to sort the data.

Secondly, we have the semantic categories of the entire genitive expressions. In this study, Kreyer’s (2003) system of semantic categorisation is used to sort the data. Only the inflected genitive is studied in this respect.
4. Material and method
As mentioned, the primary source of data in this study is the written parts of the ICE-EA (East African), ICE-IND (Indian), FLOB (British) and FROWN (American) corpora. These are small corpora of approximately one million words each, but this did not present a problem due to the fact that the strings used in the searches were extremely frequent. The corpora all contain samples from imaginative as well as informational prose, divided into subcategories, with similar sample distribution and are thus comparable in this respect as well. A test search for *’s (not used for the actual study, but only to measure frequency of that specific search string) in the written part of the ICE-EA yielded 2984 tokens. Naturally, all of these were not inflected genitives, but nevertheless, the search clarified that there was enough data available for comparison.

In order to limit the data samples and make them manageable 100 random tokens containing the inflected genitive and 100 random tokens containing the of-construction were extracted from each corpus. Thus, 800 tokens constituted the data sample of this study. The tokens containing the inflected genitive were extracted using the search string *’s/*s’. The of-construction was simply searched for using of as the search string. Randomization was conducted by sorting all found results from the searches alphabetically according to the fifth word to the left of the search word and then using the first 100 valid tokens. Irrelevant examples like contracted forms (e.g. he’s) and of serving other functions (e.g. of course) were deleted manually.

The corpora used are comparable in time, all of them containing textual data from the 1990’s. A diachronic examination is beyond the scope of this study.

Since no results from other studies are used for comparison, deviations due to different methodologies can be avoided.

5. Results and discussion
This section discusses the findings from the searches in the corpora. These results are then compared to each other, and conclusions are drawn from the results. The results from the corpora are compared in Section 5.5.

5.1 East African English
Firstly, we look at the results in EAE from the searches in the East African (Kenyan and
Tanzanian) corpus, ICE-EA.

5.1.1 Semantic categories
The starting point is the semantic categories of the tokens with the inflected genitive from the ICE-EA.

Table 1 and Figure 1 show the distribution of tokens of the inflected genitive according to the semantic categories in East African English.

Table 1. Semantic categories of the tokens in 100 tokens with the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>KIN</th>
<th>POSS</th>
<th>PART</th>
<th>SUBJ</th>
<th>OBJ</th>
<th>DISP</th>
<th>T&amp;S</th>
<th>ATTR</th>
<th>ORIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3</td>
<td>30</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>6</td>
<td>19</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Kinship (KIN), possessive (POSS), partitive (PART), subjective (SUBJ), objective (OBJ), disposal (DISP), time & space (T&S), attribute (ATTR) and origin (ORIG).

Figure 1. Semantic categories of the tokens in 100 tokens with the inflected genitive

The examination has determined that the most common semantic categories are POSS and ORIG, accounting for 51% of the tokens in our examination of EAE.

An example of the semantic category of KIN is shown in (8).

(8) Bernard got the news about my absence and the misunderstandings in Vinah’s family and took the chance to convince Vinah and her parents to accept him. (ICE-EA, my italics)
(8) belongs to the KIN-category since it displays the pattern of X is kin to Y, i.e. Vinah is kin to her family.

As we can see in Table 1 and Figure 1 the most common semantic category is POSS, which is shown in (9) and (10).

(9) The shopping centre was about four miles away from Kanaya’s actual home. (ICE-EA, my italics)

(10) In commercial pig rearing, feed accounts for 80 per cent of the producer’s costs and has profound influence on the quality and conformation of the finished carcass. (ICE-EA, my italics)

In (9) the reference is to the place where Kanaya lives, and is in direct or indirect possession of. Thus, this was classified as possessive. However, as (10) shows, classification was not always as straightforward as in (9). Words like costs can confuse during categorisation, but this token was classified as a possessive since the producer (X) has costs (Y).

Ten partitives were found, examples of these can be seen in (11) and (12).

(11) He had a beard bushier than Karl Marx’s. (ICE-EA, my italics)

(12) Waweru on page 15 expecting to meet a lady’s voice over the phone meets a [sic] voice. (ICE-EA, my italics)

It is clear that a beard is a part of the body of the person referred to. Thus this token was easy to classify as a partitive. However, tokens like (12) presented greater difficulties than (11). The choices available for the noun voice were categorisation as a POSS, ORIG or a PART. The choice was made to classify this as PART since the voice is produced and can only be conveyed directly by a part of the body, differentiated from e.g. something written which is more commonly transmitted by another object, not the actual body.

The subjective tokens are exemplified by (13) and (14).

(13) After listening for a while to the young man’s moans and groans, the Mzee got into a thoroughly remonstrative mood and, letting out a stream of epithets, told the young man that he had no business expecting any sympathy for his own indolence. (ICE-EA, my italics)

(14) Her only son defected to Canada a few days after the father’s death. (ICE-EA, my italics)
In (13) the meaning of the expression is that the young man moaned and groaned; thus the formula X Verb (Y) presented by Kreyer (2003:178) is shown clearly: X (the young man) Verb (moan + groan).

In (14) the same formula can be illustrated in the father died: X (the father) Verb (died). There were even fewer objective tokens (only two were identified). One of these is displayed in (15).

(15) *A supporter of the KBC’s* is calling on companies and wellwishers to financially assist in saving the popular programme from collapse. (ICE-EA, my italics)

In (15) one can see that the meaning of *A supporter of the KBC’s* is that ‘someone supports the KBC’. Thus it is possible to once more relate to Kreyer’s (2003:178) model where this is shown as: someone Verb (supports) X (KBC). Also to be noted is that this is a ‘post-genitive’ (double-genitive) where the inflected genitive “acts as prepositional complement following of” (Quirk et al. 1985:330). But since this “prepositional complement” rephrased to *KBC’s supporter* can be explained as an *objective*, this token was classified accordingly. This token was the only post-genitive found in this study.

The sixth category of meaning is the disposal-category, which yielded six tokens. (16) indicates that the categorisation of these tokens is not always as straightforward as one might assume.

(16) It is a chilly morning in Dagoretti *Children's home*, Nairobi. (ICE-EA, my italics)

One could argue that (16) belongs to the category POSS, but since *Children's home* does not refer to regular homes of children but rather to an institution that can be at someone’s disposal at times of need, like e.g. a hospital, this was categorised as disposal: The children (X) have the home (Y) at their disposal. It would, however, have been more satisfactory if a separate category existed in the model for this kind of descriptive genitives.

In the seventh category of meaning, the Time & Space-category, nineteen tokens out of the random one hundred were identified; one of these is displayed in (17).

(17) The only functioning pump produces only 600 cubic metres against the town’s estimated consumption of 5,000 cubic metres. (ICE-EA, my italics)
(17) can be described using the model in the following way: the estimated consumption (Y) in the town (X). This refers to a place, consequently fitting into the category *Time & Space*.

The eighth category of meaning is that of *attributes*, and only two attributes were found. (18) is an example illustrating this category.

(18) Unemployment is a state of not being able to have a source of income despite *one’s skills*. (ICE-EA, my italics)

*One’s skills* can be rephrased as *one is skillful*. Thus this token carries an attributive meaning. It could be argued that a skill is possessed, but since it is an attribute of a person, ATTR is a more suitable categorisation.

Finally, we have the semantic category of ORIG; 22 tokens were identified and an example is shown in (19).

(19) This is when Henry Kuria’s play, Nakupenda Lakini was staged by students of Alliance High School. (ICE-EA)

(19) was easy to classify since the play referred to was written by Henry Kuria, which is clearly expressed in the token. Realized through the pattern described in the model: Henry Kuria (X) wrote (Verb) the play (Y).

5.1.2 Lexical class of the modifier

5.1.2.1 The inflected genitive

Now, we look at the lexical classes of the modifiers found in the tokens with the inflected genitive. This random sample contained a hundred tokens with either ‘s or s’, representative of both the ‘s-ending and the zero-ending of our inflected genitives. The results are shown in Table 2.

As Table 2 demonstrates, the most common modifier class in the tokens with the inflected genitive in EAE is the class of personal nouns. 31 personal nouns were identified and most of these tokens were simple to identify, as shown in (20).
Table 2. Lexical classes of the modifiers in 100 tokens with the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>4</td>
<td>25</td>
<td>31</td>
<td>16</td>
<td>0</td>
<td>8</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

Pronoun (PRO), personal name (PNA), personal noun (PNO), collective noun (COL), animal noun (ANI), geographical noun (GEO), noun denoting location (LOC), noun denoting time (TIM), abstract noun (ABS) and concrete noun (CON).

(20) Her only son defected to Canada a few days after the father’s death. (ICE-EA, my italics)

Here, the noun father was identified as a personal noun given that it identifies a person not named by name.

Four tokens fitted into the pronoun class and all of these were indefinite pronouns (i.e. one, someone and everyone). (21) displays one of these.

(21) The Nairobi City Commission, for example, collects an estimated Sh40 million every month from a certain tax with the deceptive name of Service Charge, a description that must be someone’s funny idea of a euphemism. (ICE-EA, my italics)

Personal names were easy to identify and also abundant. 25 tokens were placed in the PNA-class. (22) and (23) are tokens that were classified as personal names.

(22) They supported Mrs Muge’s sentiments that a Nandi should be elected bishop of the diocese. (ICE-EA)

(23) For example ‘A’ counsels B to steal X’s motorcycle and B instead of stealing it set it on fire. (ICE-EA)

In (23), one could argue against the classification since X is not a personal name. However, this token was classified as a personal name since X acts as a placeholder for a hypothetical personal name, i.e. A, B and X could be replaced with any personal name like Adam, Sarah and Jane.

There were 16 collective modifier nouns in our 100 random tokens. (24) and (25) are examples of the class collective nouns.
When the consulting teams’ views did not match with that of a client, the response was "... let us now reason like economists". (ICE-EA, my italics)

ALDEV’s portfolio included provision of basic infrastructure (roads and water), project planning and co-ordination as well as financial control of development funds in African areas. (ICE-EA, my italics)

In (24), the noun team is a collective noun and in (25) ALDEV is an acronym for an organisation, the African Land Development Board, which is also a collective noun.

No animal modifier nouns, such as Fido or dog were identified in the random data sample. Geographical modifier nouns, in contrast to animal nouns occurred in our data sample; eight tokens of this kind were identified. (26) exemplifies a geographical modifier noun.

Kenya’s Executive magazine of July 1991 contained an article praising Tanzania’s lively new free press, which it says is permitted to discuss events “very freely indeed” by African standards. (ICE-EA, my italics)

Not surprisingly, the geographical nouns in the ICE-EA are to a large extent names of the countries from which the data was collected, namely Kenya and Tanzania.

Nouns denoting location accounted for thirteen tokens, i.e. more than geographical nouns. (27) and (28) illustrate this modifier-type.

Women make up a large number of the world’s agriculturalists. (ICE-EA, my italics)

Women and children, their backs groaning under the weight of water cans and pots have become a permanent feature on the town’s streets. (ICE-EA, my italics)

In (27) and (28), the nouns world and town denote location, but are not names of specific places. Thus, they are nouns denoting location.

Only two modifier nouns denoting time were found in our sample. One such token is shown in (29).

Former Cotu boss Joe Jolly Mugalla was a Kanu hawk since 1986 when he rose to that position and only made a 180-degree turn after last year’s national elections in which he was a losing contestant. (ICE-EA, my italics)

Year clearly denotes time, thus categorisation in this case was easy. The other modifier noun
denoting time was also the noun *year*.

Finally, we have the categories of abstract and concrete nouns. Since no concrete nouns like *roof* or *car* were identified we move on to abstract nouns. The only token identified is shown in (30). However, this categorisation may be contradicted for certain reasons.

(30) Wanjiru, sorry about the baby. It is God’s will. Now you have to get up. (ICE-EA, my italics)

The question of how to classify *God* depends on the perspective of the beholder. A religious beholder might thus be more inclined to classify this token as personal name, or a personal noun. One could argue that *God* is personified to such an extent that it could be classified as a personal noun. However, religious considerations are beyond the scope of this study. Consequently, *God* was classified as an abstract noun like e.g. *spirit*, not being a personality, an animal or a concrete noun.

A tendency is revealed in this section. The classes that can be regarded as inclined towards animateness, i.e. animateness-biased (PRO, PNA, PNO, COL and ANI) accounted for 76 of the 100 tokens (thus 76%). This even though no animal nouns were identified. Figure 2, where the animateness-biased modifier classes are marked with black and shades of grey and the other modifier classes are marked by stripes and other patterns shows this tendency more clearly.

![Figure 2. Lexical classes of the modifiers in 100 tokens with the inflected genitive](image-url)
5.1.2.2 The of-construction

This section discusses the lexical classes of the modifiers with the of-construction in EAE. The overall results are shown in Table 3 and Figure 3.

Table 3. *Lexical classes of the modifiers in 100 tokens with the of-construction*

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>38</td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

*Cf* Table 2 for a key to abbreviations.

![Pie chart of lexical classes with counts](image)

Figure 3. *Lexical classes of the modifiers in 100 tokens with the of-construction*

Figure 3 shows us that the classes of modifiers that are inclined towards inanimateness, i.e. inanimateness-biased, GEO, ABS, CON, TIM, and LOC were the most common ones, accounting for 72% of the total number of tokens.

No pronouns were identified in this section. One can only speculate as to the reasons of this, but if we relate this to Quirk et al.’s (1985:322-323) claim that “the [inflected] genitive is favoured for classes which are highest on the gender scale”, then it is only natural that this class was not “favoured” by the of-construction. The same situation would then be expected to be true for personal names, a class which only appeared in one token, as can be seen in (31).
(31) He later entered Uganda and in 1974 joined Orchestra Bana Ngenge of Jojo Ikomo, with which he travelled to Nairobi. (ICE-EA, my italics)

_Nouns denoting time_ is a class that is interesting to look at due to few tokens. There were only two modifier _nouns denoting time_ among the _of_-constructions in our data sample. One of these is shown in (32).

(32) From these figures, it is clear that the county will have to import over 200,000 metric tonnes of beef to feed the population projected to 35 million by the turn of the century. (ICE-EA, my italics)

In (32), _century_ is the modifier, and it is clear that it denotes time. If we compare the number of occurrences to those with the inflected genitive, we find that the same number occurs.

5.2 Indian English

The second corpus examined in this study is the Indian ICE-IND-corpus, discussed in this section.

5.2.1 Semantic categories

Firstly, the results regarding the study of the semantic categories of the inflected genitives in ICE-IND are presented and discussed. Table 4 and Figure 4 show the distribution of the tokens according to semantic categories.

Table 4. _Semantic categories of the tokens in 100 tokens with the the inflected genitive_

<table>
<thead>
<tr>
<th></th>
<th>KIN</th>
<th>POSS</th>
<th>PART</th>
<th>SUBJ</th>
<th>OBJ</th>
<th>DISP</th>
<th>T&amp;S</th>
<th>ATTR</th>
<th>ORIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1</td>
<td>31</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>10</td>
<td>12</td>
<td>5</td>
<td>28</td>
</tr>
</tbody>
</table>

Cf Table 1 for a key to abbreviations.

Table 4 and Figure 4 show that POSS and ORIG are dominant categories, accounting for 59% of the total number of tokens. The smallest categories were KIN, OBJ and PART with one, two and three tokens respectively. DISP, ATTR, SUBJ and T&S were intermediately frequent compared to the smaller and larger groups with ten, five, eight and twelve tokens respectively.

Going into details, we now look at tokens that provided difficulties during categorisation, starting with a token that was categorised as a SUBJ, shown in (33).
(33) The Union government’s decision to amend the Indian Patents Act, 1970, was only to be expected. (ICE-IND, my italics)

Figure 4. Semantic categories of the tokens in 100 tokens with the the inflected genitive

In (33), a collective body (noun) decides something. Thus categorisation should be easy using Kreyer’s (2003) categories of genitive meaning. However, this case is special due to the fact that it could be argued that a governmental decision is a product rather than something subjective, thus the meaning should be one of ORIG (like the government’s document), but in this case the token was categorised as carrying a SUBJ meaning, since no specific document is mentioned.

Another token which has a classification that could be questioned if not discussed is (34).

(34) It is a man’s income minus his expenditure. (ICE-IND, my italics)

One could argue that someone’s income is a possession and thus falls under the category of possessives, however, in this case the token fits better into the category of disposal. Money is possessed, but an income is something that one has at one’s disposal.

Finally, a token that was categorised as a possessive caused problems due to its unclear nature; it is shown in (35).
If a craft’s altitude is above safety level, the lights on the runway turn white and if it is lower they turn red and the right level for landing is indicated by green lights. (ICE-IND, my italics)

Altitude makes this token harder to classify, since it is an abstract noun and thus does not fit into Kreyer’s (2003) model. The only category that this token can be assigned to, due to the elements it contains is POSS. It is possible to say that X has an Y i.e. A craft has an altitude (above safety level). It could be argued that it is possible to categorise this token as ATTR. However, this categorisation does not fit into the pattern X is Adj (Y) since one cannot say that something is e.g. ‘altitudious’.

5.2.2 Lexical class of the modifier
5.2.2.1 The inflected genitive

The lexical classes of the modifiers in InE are discussed in this section, and the results from this part of the search in ICE-IND are shown in Table 5 and Figure 5.

Table 5. Lexical classes of the modifiers in 100 tokens with the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1</td>
<td>29</td>
<td>30</td>
<td>12</td>
<td>0</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>100</td>
</tr>
</tbody>
</table>

Cf Table 2 for a key to abbreviations.

Figure 5. Lexical classes of the modifiers in 100 tokens with the inflected genitive
As Table 5 and Figure 5 show, the lexical classes of the modifiers in the data from Indian English, with the inflected genitive, are biased towards animateness. 72% of the tokens were assigned to animateness-biased classes. Figure 5 also shows that PNA and PNO are the classes dominating the figure.

We now look at two tokens that proved difficult to classify, starting with a problem in (36).

(36) They imagined *Neptune’s* ring to be a discontinuous ‘ring arc’ unlike any other planetary ring. (ICE-IND, my italics)

Here we have a celestial body, something that falls outside of Jucker’s (1993) modifier classes. In Dahl’s (1971:156) classification system, “the sun, the planets and their satellites” have a separate class, which could have been suitable for this study as well. The closest to this among Jucker’s (1993) classes is the GEO, i.e. names of geographical areas. Thus, it was opted to classify *Neptune* as a GEO.

Another token that caused classification problems is shown in (37).

(37) 2.1 The Indian *Boiler’s* Act, 1923 (ICE-IND, my italics)

In (37) one needs the context in order to classify the token. *Boiler*, out of context, could be a person’s last name. However, in this case the meaning of *Boiler* was a piece of machinery. Thus, it was classified as a CON.

5.2.2.2 The of-construction

The final part of our results from ICE-IND contains the lexical classes of the modifiers with the of-construction. These are shown in Table 6 and Figure 6.

<table>
<thead>
<tr>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td></td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>44</td>
<td>28</td>
</tr>
</tbody>
</table>

*Cf* Table 2 for a key to abbreviations.

As Table 6 and Figure 6 show, ABS and CON are the classes with the highest number of
tokens. Together, the tokens of these classes account for 72% of the total number of tokens with the of-construction examined in the ICE-IND corpus. The classes biased towards inanimateness are strongly dominant and account for 81% of the 100 tokens.

Figure 6. Lexical classes of the modifiers in 100 tokens with the of-construction

Here, there were also some tokens that presented classification difficulties; one of these is displayed in (38).

(38) Brown et al. (1974) evaluated removal of viruses using bacateriophage T2 and poliovirus by diatomaceous earth filtration. (ICE-IND, my italics)

Viruses could be considered questionable as ANI, given their inability to function as life-forms without hosts. However, to classify them as CON (non-living) nouns is not ideal either since they are life-forms. Thus, the class closest to viruses is the class of ANI. Consequently, viruses (and bacteria) were classified as ANI in this study.

5.3 American English

The third variety of English in this study is AmE. This section presents the results from the Frown corpus.

5.3.1 Semantic categories

Firstly, the semantic categories of the tokens with the inflected genitive are discussed. Table 7
Table 7. Semantic categories of the tokens in 100 tokens with the the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>KIN</th>
<th>POSS</th>
<th>PART</th>
<th>SUBJ</th>
<th>OBJ</th>
<th>DISP</th>
<th>T&amp;S</th>
<th>ATTR</th>
<th>ORIG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>5</td>
<td>20</td>
<td>1</td>
<td>17</td>
<td>3</td>
<td>17</td>
<td>13</td>
<td>2</td>
<td>22</td>
<td>100</td>
</tr>
</tbody>
</table>

Cf Table 1 for a key to abbreviations.

Figure 7. Semantic categories of the tokens in 100 tokens with the the inflected genitive

Table 7 and Figure 7 show that the largest categories are the POSS and the ORIG categories. These account for 20 and 22 per cent of the tokens respectively. However the SUBJ and DISP categories are not far behind the first two with 17 per cent of the tokens respectively. In between these we have the categories of T&S (13%), KIN (5%), OBJ (3%), ATTR (2%) and, finally, the smallest category, PART, which accounted for only one per cent of the tokens.

All corpora presented some tokens that were difficult to categorise, and the Frown corpus was not an exception to this “rule”. (39) is an example of one such token.

(39) Metropolitan’s legal staff represents Metropolitan, its Board of Directors, officers, and occasionally employees, in litigation and administrative proceedings. (Frown, my italics)

In (39), Metropolitan refers to the Metropolitan Police in New York. One could categorise this as a possessive, since Metropolitan has legal staff, however, DISP was chosen since legal
staff is not property, but rather a resource that can be used.

5.3.2 Lexical class of the modifier

5.3.2.1 The inflected genitive

The lexical classes of the modifiers in the tokens from Frown are next in line to be shown among our results. Table 8 and Figure 8 show the distribution of these in AmE.

Table 8. Lexical classes of the modifiers in 100 tokens with the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>4</td>
<td>53</td>
<td>18</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>

Cf Table 2 for a key to abbreviations.

Figure 8. Lexical classes of the modifiers in 100 tokens with the inflected genitive

Among the inflected genitives, the animateness-biased classes are dominant in Frown. The class of PNA alone accounts for 53 per cent of the tokens, and the animateness-biased classes altogether account for 82% of the tokens. The largest “inanimate” class, GEO, numbered only seven tokens.

One token among the COL presented some difficulties in classification and is shown in (40).

(40) The asymmetric DNA was sequenced directly using the Sequenase system (U.S. Biochemical) according to the manufacturer’s directions. (Frown, my italics)
Here, the question is whether a *manufacturer* is a COL or a CON. The solution to this problem was to regard the *manufacturer* as a unit consisting of several parts, i.e. a company which is the sum of its employees. Using that definition, *manufacturer* also becomes more animate.

5.3.2.2 The *of*-construction

Finally, for American English, we have the tokens with the *of*-construction. The results of these are shown in Table 9 and Figure 9.

Table 9. *Lexical classes of the modifiers in 100 tokens with the of-construction*

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>2</td>
<td>20</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>35</td>
<td>23</td>
<td>100</td>
</tr>
</tbody>
</table>

*Cf Table 2 for a key to abbreviations.*

Figure 9. *Lexical classes of the modifiers in 100 tokens with the of-construction*

Compared to the previous varieties examined, which will be done more thoroughly in Section 5.5, the pattern shown in Table 9 and Figure 9 is expected. Once more, the inanimateness-biased classes are dominant with the *of*-construction. The largest class was ABS, accounting for 35 per cent of the tokens, followed by CON, which accounted for 23 per cent of the tokens. The largest class in the “opposite group” was the PNO, which accounted for 20 per cent of the total number of tokens. The other animateness-biased classes were of less than 10
per cent each, as were the other inanimateness-biased classes. Finally, there were no tokens with the class of PRO.

There were classification difficulties with a couple of the tokens of this aspect too, one of which is shown in (41).

(41) Babette, a Frenchwoman and friend of Papin, is cast up into the village, fleeing from the violence of the Commune. (Frown, my italics)

In (41), the Paris Commune is discussed. It was a state-like construction with its own laws and ideals that was given the name Commune. One might thus be inclined to classify Commune as a GEO. However, since Commune also refers to a group of people defending their ideals the suitable classification is that of a COL, i.e. a construction of which individuals are parts.

5.4 British English

The final variety examined in this study is BrE. This section discusses the results from the FLOB corpus.

5.4.1 Semantic categories

Firstly, the categorisation of the tokens of the inflected genitive according to semantic categories is shown in Table 10 and Figure 10.

Table 10. Semantic categories of the tokens in 100 tokens with the the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>KIN</th>
<th>POSS</th>
<th>PART</th>
<th>SUBJ</th>
<th>OBJ</th>
<th>DISP</th>
<th>T&amp;S</th>
<th>ATTR</th>
<th>ORIG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>6</td>
<td>23</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 10 for a key to abbreviations*

Table 10 and Figure 10 show that the largest semantic categories are the POSS and the ORIG categories, with 23 and 21 tokens respectively. The DISP category is the third largest category with 12 tokens, and the other categories contain ten tokens or less.

(42) is an example of a token among the results from BrE that was hard to categorise.
This failure is rooted in the Labour Party’s reformism, in its focus on the capitalist state as the means whereby change can be accomplished - a focus that has always involved Labour politicians taking on the job, when in office, of defending that state against its enemies, both internal and external. (FLOB, my italics)

The question of how to classify (42) depends on what weight origin carries. One could argue that this token belongs in the ORIG-category, because it could be seen as a product of the Labour Party’s, i.e. X produces Y. However, to see this as a part of the ATTR-category gives a clearer account of the meaning, i.e. The Labour Party is reformistic, thus this token was categorised as ATTR.

5.4.2 Lexical class of the modifier

5.4.2.1 The inflected genitive

Secondly, we move on to the lexical classes of the modifiers in our tokens from BrE, starting with the inflected genitive. The distribution is shown in Table 11 and Figure 11.

Table 11. Lexical classes of the modifiers in 100 tokens with the inflected genitive

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>45</td>
<td>24</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

Cf Table 2 for a key to abbreviations.
As shown in Table 11 and Figure 11, once again for the *inflected genitive*, the animateness-biased classes are dominant, accounting for 80 per cent of the tokens. The largest class was PNA, with 45 tokens, and the second largest class PNO, with 24 tokens. No tokens of PRO or ANI were found.

In (43) there was the question of whether the token should be classified as a PNA or a PNO.

(43) We had this conversation as we skirted Buckingham Palace, where the Queen’s Gallery now is, and walked on through an overcast afternoon towards Belgravia. (FLOB, my italics)

It was decided to classify (43) as a PNO, since Queen, in this case refers to a general concept, not to a specific queen’s name.

5.4.2.2 The *of*-construction

Finally, the last part of the results shows the distribution of the tokens with the *of*-construction in BrE, in Table 12 and Figure 12.
Table 12. Lexical classes of the modifiers in 100 tokens with the of-construction

<table>
<thead>
<tr>
<th></th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>8</td>
<td>13</td>
<td>11</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>33</td>
<td>23</td>
<td>100</td>
</tr>
</tbody>
</table>

*Cf Table 2 for a key to abbreviations.*

Figure 12. Lexical classes of the modifiers in 100 tokens with the of-construction

Once again, the classes ABS and CON are the largest with 33 and 23 tokens respectively. The inanimateness-biased classes (GEO, LOC, TIM, ABS and CON) consequently account for 67 per cent of the tokens, and are thus dominant. The largest of the animateness-biased classes is the PNO-class with 13 tokens followed by the COL-class with 11 tokens.

Our final sample token, (44), taken from these corpus tokens, shows another classification problem concerning a deity.

(44) Many of them have been in and out of the repertory since the Bouronville centenary festival of 1979 (reviewed in our January 1980 issue) but some are being re-staged and the reconstructions of Abdallah and *The Lay of Thrym* will be added to the surviving ballets. (FLOB)

Since *Thrym* is a deity in Nordic mythology, the choice was made to classify the token as ABS. One could argue that this is a personality and thus a PNA, but since religious considerations are beyond the scope of this study, this discussion need not be expanded further.
5.5 Regional variation

This section of the study compares the results of the different varieties and shows differences and similarities in the distribution of tokens.

5.5.1 Semantic categories

Firstly, the distribution of the tokens according to semantic categories in the four varieties is compared. With the hypothesis in mind that this distribution is similar in all varieties examined the results shown in Table 13 and Figure 13, are discussed.

Table 13. Distribution of tokens according to semantic categories in all varieties examined

<table>
<thead>
<tr>
<th></th>
<th>KIN</th>
<th>POSS</th>
<th>PART</th>
<th>SUBJ</th>
<th>OBJ</th>
<th>DISP</th>
<th>T&amp;S</th>
<th>ATTR</th>
<th>ORIG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAE</td>
<td>3</td>
<td>30</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>6</td>
<td>19</td>
<td>1</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>InE</td>
<td>1</td>
<td>31</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>10</td>
<td>12</td>
<td>5</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td>AmE</td>
<td>5</td>
<td>20</td>
<td>1</td>
<td>17</td>
<td>3</td>
<td>17</td>
<td>13</td>
<td>2</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>BrE</td>
<td>6</td>
<td>23</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>104</td>
<td>21</td>
<td>42</td>
<td>12</td>
<td>45</td>
<td>54</td>
<td>15</td>
<td>92</td>
<td>400</td>
</tr>
</tbody>
</table>

EAE (East African English), InE (Indian English), AmE (American English) and BrE (British English)

Figure 13. Distribution of tokens according to semantic categories in all varieties examined

Table 13 and Figure 13 reveal several clear tendencies. Firstly it is clear that ORIG and POSS account for a large number of tokens in all varieties examined. It is also clearly shown that
KIN, ATTR and OBJ are categories with few tokens (≤7). The SUBJ category is also, with American English as an exception, a category that has a roughly similar distribution of tokens, i.e. between 8-9 tokens. The distribution in the T&S category is similar to that of the SUBJ category, i.e. between 10-13, with EAE being the exception accounting for a high number of tokens (19). The most dispersed category is DISP with the distribution of 6, 10, 17 and 12 tokens respectively, followed by the category PART with the distribution of 10, 3, 1 and 7 tokens respectively.

Summing up, we have two categories with clear high numbers of tokens that are thus similar in their high distribution, i.e. POSS and ORIG; three categories with few (≤7) tokens, thus similar in their low distribution, i.e. KIN, ATTR and OBJ; two categories of similar distribution with one variety as an exception, i.e. SUBJ and T&S, and finally two dispersed categories, i.e. DISP and PART.

Thus the conclusion is that with two categories of similar high distribution, three with similar low distribution, two with similar distribution (minus one variety as an exception) and finally two categories that are dispersed, the distribution of tokens according to semantic categories is similar for five out of the nine categories, semi-similar for two and asimilar for two. Relating this to the hypothesis about semantic categories, that the distribution of inflected genitives according to categories of meaning is similar in all the varieties of English examined, it can be concluded that it is confirmed for the categories POSS, ORIG, KIN, ATTR and OBJ; partially confirmed for SUBJ and T&S, and not confirmed for DISP and PART. Thus, overall, the hypothesis is confirmed, with a few exceptions.

It might be the case that the dispersed categories are a result of individual characteristics of the tokens and that a study of a larger number of tokens from each variety would yield other results.

5.5.2 Lexical classes of the modifiers

Finally, differences between the varieties in the case of the lexical classes of the modifiers with the inflected genitive and the of-construction are discussed. Table 14 shows the total distribution of the tokens in these categories in the varieties examined.

As can be seen, especially when looking at the PNA, PNO, ABS and CON classes there are large differences between the different constructions. Especially notable in this table is the fact that no animal nouns were found with the inflected genitive One could have expected
animals to appear here since they are living things. As mentioned earlier, another interesting observation is the PNA in AmE and BrE with the inflected genitive compared to the more even distribution of the tokens between PNA and PNO in EAE and InE for the same form.

Table 14. Distribution of the tokens according to the lexical class of the modifier in all varieties examined.

<table>
<thead>
<tr>
<th>Variety – construction</th>
<th>PRO</th>
<th>PNA</th>
<th>PNO</th>
<th>COL</th>
<th>ANI</th>
<th>GEO</th>
<th>LOC</th>
<th>TIM</th>
<th>ABS</th>
<th>CON</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAE – inflected g.</td>
<td>4</td>
<td>25</td>
<td>31</td>
<td>16</td>
<td>0</td>
<td>8</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>EAE – of</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>38</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>InE – inflected g.</td>
<td>1</td>
<td>29</td>
<td>30</td>
<td>12</td>
<td>0</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>InE – of</td>
<td>0</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>44</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td>AmE – inflected g.</td>
<td>4</td>
<td>53</td>
<td>18</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>AmE – of</td>
<td>0</td>
<td>2</td>
<td>20</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>35</td>
<td>23</td>
<td>100</td>
</tr>
<tr>
<td>BrE – inflected g.</td>
<td>0</td>
<td>45</td>
<td>24</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>100</td>
</tr>
<tr>
<td>BrE – of</td>
<td>0</td>
<td>8</td>
<td>13</td>
<td>11</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>33</td>
<td>23</td>
<td>100</td>
</tr>
</tbody>
</table>

Pronoun (PRO), personal name (PNA), personal noun (PNO), collective noun (COL), animal noun (ANI), geographical noun (GEO), noun denoting location (LOC), noun denoting time (TIM), abstract noun (ABS) and concrete noun (CON). Cf Table 2 for a key to class-abbreviations.

In order to answer the hypothesis, the number of inanimateness-biased (GEO, LOC, TIM, ABS and CON) and animateness-biased (PRO, PNA, PNO, COL and ANI) tokens for each form in each variety needs to be summed up. The results of this calculation are shown in Table 15 and Figure 14, and the bias groups are henceforth referred to as ANIB (the animateness-biased group) and INANIB (the inanimateness-biased group).

Table 15. Distribution of the tokens according to the bias groups in all varieties examined.

<table>
<thead>
<tr>
<th>Variety – construction</th>
<th>ANIB</th>
<th>INANIB</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAE – inflected g.</td>
<td>76</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>EAE – of</td>
<td>28</td>
<td>72</td>
<td>100</td>
</tr>
<tr>
<td>InE – inflected g.</td>
<td>72</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td>InE – of</td>
<td>19</td>
<td>81</td>
<td>100</td>
</tr>
<tr>
<td>AmE – inflected g.</td>
<td>82</td>
<td>18</td>
<td>100</td>
</tr>
<tr>
<td>AmE – of</td>
<td>34</td>
<td>66</td>
<td>100</td>
</tr>
<tr>
<td>BrE – inflected g.</td>
<td>80</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>BrE – of</td>
<td>33</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>424</td>
<td>376</td>
<td>800</td>
</tr>
</tbody>
</table>

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As shown in Table 15, and more clearly in Figure 14, the INANIB-group is obviously dominant in all examinations of the *of*-construction and the opposite is the case for the ANIB-group in all examinations of the inflected genitive. The dominance of one group is strongest in the tokens with the inflected genitive in AmE. There, 82 of the 100 tokens belong to the ANIB-group. Likewise, the opposite proportions for the tokens belonging to the INANIB-group in InE with the *of*-construction can be noted, there 81 of the 100 tokens belong to the INANIB-group.

In conclusion, the hypothesis that in the case of the inflected genitive, modifiers that belong to the classes generally seen as animate are more common than modifiers in the classes seen as inanimate, and that the opposite situation applies in the case of the *of*-construction has been confirmed. The second hypothesis that this is true for all varieties examined has also been confirmed.

6. Summary and conclusions

This study has examined the inflected genitive and the *of*-construction in four varieties of English: East African (Kenyan and Tanzanian), Indian, American and British English, using the data from one corpus for each variety, namely the ICE-EA, ICE-IND, Frown and FLOB.
Tokens with the inflected genitive were sorted into semantic categories and it was hypothesized that the results from all corpora would be similar. This hypothesis was confirmed for five of the categories, partly confirmed for two of the categories and not confirmed for the remaining two categories. Consequently, the hypothesis was confirmed for the majority of the semantic categories.

However, there were difficulties in categorisation due to the fact that Kreyer’s (2003) semantic categories did not cover all hypothetical situations. A modified version of Kreyer’s (2003) model would be more ideal for future studies. Furthermore, clear criteria for the categorisation of the of-construction should be defined so that the inflected genitive and the of-construction can be compared; the semantic categories of the inflected genitive and the of-construction would be an interesting topic for future studies.

Furthermore, it was hypothesized that for the inflected genitive, the classes of modifiers biased towards animateness would be dominant, and that the opposite order would apply for the of-construction. Moreover, it was hypothesized that this would be true for all varieties examined. These hypotheses were confirmed for all varieties. In the case of the of-construction there was a clear bias towards the inanimate classes, and in the case of the inflected genitive this was true for the animate classes.

Jucker’s (1993) modifier classes served their purpose in this study and enabled the difference between the inflected genitive and the of-construction to be shown clearly on an animateness-scale.

To sum up, this study has discussed an interesting feature in English grammar and has shown that it functions in the same way in four varieties, i.e. in written corpora containing similar genres. A diachronic perspective of the inflected genitive v. the of-construction in East African and Indian English would be an interesting topic for future corpus studies, given that a corpus of texts from the 70’s is created for East African English. Finally, another possible topic for future studies of the inflected genitive and the of-construction is the examination of this feature in spoken English.
References

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Secondary sources


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