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Comparison of English Genitive Forms of Inanimate Nouns.
A Corpus-Based Study.
Bakalářská práce

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ZÁSADY PRO VYPRACOVÁNÍ:

The purpose of this thesis is to compare the distribution of the genitive -s inflection and its alternative of-phrase of inanimate nouns in British and American English. Corpus data will serve as the means for the comparison.

- 1.Introduction
- 2.Genitive Forms in English
- 3.Overlapping Distribution
- 4.Genitive Shift
- 5.Research Questions and Methodology
- 6.Corpus Data
- 7.Discussion
- 8.Conclusion

SEZNAM DOPORUČENÉ LITERATURY:

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Prohlašuji, že jsem tuto bakalářskou práci vypracovala samostatně a uvedla úplný seznam citované a použité literatury.

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1 Introduction

Genitive 's is the only remaining case inflection of nouns in the English language (Biber 1999, 292) and its usage is defined in many environments (Huddleston and Pullum 2002, 467). When the inflectional genitive is due to syntactic, phonetic, semantic or pragmatic reasons restricted, the *of*-construction replaces it (Quirk et al. 1985, 321; 1275-1277). Though the distribution of these two forms is often complementary (Quirk et al. 1985, 1277-78), there are nouns with which the usage of one or the other is not strictly stated (Quirk et al. 1985, 321). Among such cases are, for example, nouns that refer to living human beings or animals and with which both the genitive 's and the *of*-construction are often acceptable (Dušková et al. 2012, 92–93). Nevertheless, even certain inanimate nouns can present such ambiguity in expressing the genitive case (Quirk et al. 1985, 1277). The purpose of this thesis is to provide a literature overview of English genitive forms and the factors affecting the choice between them, to determine the trends in using Saxon genitive with inanimate nouns and to verify the findings using corpus data.

Firstly, an overview of relevant literature will be provided, with special focus on factors which can influence the choice between the two genitive alternatives. Furthermore, changes in preference of the two forms will be stated, with special attention to the variety of English, diachronic change, and contextual influence. The overview will then serve as a base for determining specific inanimate nouns which can often be used with both the Saxon genitive and the *of*-construction. Secondly, research questions which will emerge from the literature overview will be tested on the set of the inanimate nouns using data from the BYU corpora provided by Mark Davies (2004, 2008, 2010).

Thirdly, I will present thorough analysis of acquired data and provide possible explanations for the results with respect to syntactic, phonetic, semantic or pragmatic reasons that the speakers might have had for selecting one form of the genitive or the other.

Lastly, conclusions will be drawn and I will comment on fulfilling the purpose of this thesis.

2 Genitive Forms in English

In English, there are two ways to express genitive, either morphologically by adding 's or by post-modification with the preposition *of* (Quirk et al. 1985, 318–331, 1275–1285). Each of these constructions has their linguistic specificities which will be introduced in the following text, together with factors which affect the speakers' choice between the two forms.

2.1 Saxon Genitive

2.1.1 Morphological and Phonetic Realization

The Saxon genitive, or the 's construction, is the inflectional form of the genitive (Quirk et al. 1985, 319–321) and grammar books (Quirk et al. 1985, Biber et al. 1999) agree on its morphological and phonetic realization. Morphologically, the Saxon genitive is realized by adding the apostrophe + "s" to a noun phrase, or by adding only the apostrophe. The former we apply to nouns in singular (1) or to nouns in plural when the plural form is irregular (2). If we have a regular plural noun, only the apostrophe is added (3). Genitive realized this way is called the "zero genitive" (Quirk et al. 1985, 319).

(1) (a) *boy—boy's*

(b) *girl—girl's*

(c) *dog—dog's*

(2) (a) *men—men's*

(b) *women—women's*

(Biber et al. 1999, 292)

(3) (a) *boys—boys'*

(b) *ladies—ladies'*

(Biber et al. 1999, 292)

The phonetic rules for pronunciation of the genitive are the same as for the plural -s; after voiced consonants and vowels it is pronounced as /z/, after unvoiced consonants it is pronounced as /s/, when the word ends with a sibilant, it is pronounced as /ɪz/ (Quirk et al. 1985 319–321; Biber et al. 1999, 292–293). The zero genitive with plural nouns has no phonetic realization (Quirk et al. 1985, 319). There

are, though, some “irregularities” (Payne 2009, 325–326). As Payne (2009, 325–326) highlights, some proper nouns ending in a sibilant offer a choice between the regular genitive form ’s and the zero genitive (4). Other nouns, “such as *species* which are identical in the singular and plural obligatory require the zero form” (Payne 2009, 325).

(4) (a) *the Chambers’/Chambers’s*

2.1.2 Grammatical Categorization

Regarding grammatical categorization of English genitives, different authors use different systems and terminology. Even though each book presents its own categorization, certain categories are always included. Quirk et al. (1985, 326–328) distinguish “genitive as determinative” and “genitive as modifier.” These two grammatical categories are describe also in Huddleston and Pullum (2002, 467–470) under the terms “subject-determiner” type of genitives and “attributive genitives,” Biber et al. (1999, 294–295) then use the terminology “specifying genitives” and “classifying genitives.”

2.1.2.1 Genitive as Determinative

The determinative genitive functions as a determiner and as such, it cannot be accompanied by other central determiners referring to the head noun (5) (Biber et al. 1999, 294).

(5) * *The girl’s that face* (Biber et al. 1999, 294)

Nevertheless, the genitive is a NP itself and therefore, it can have a central (or other) determiner of its own (6) (Biber et al. 1999, 294). And, Quirk et al. (1985, 326) say, if a determiner precedes a determinative genitive, it belongs to the genitive NP.

(6) (a) *a girl’s face*
(b) *the girl’s face*
(c) *that girl’s face* (Biber et al. 1999, 294)

To demonstrate that the determiner belongs to the genitive NP, we can use an example where the genitive NP and the head of the superordinate NP have different number and therefore require different grammatical agreement (Quirk et al. 1985, 326). In (7) the determiner *many* must refer to the word *people*, which is in plural and not to the head noun *ambition*, which is singular.

(7) *many people's ambition* (Quirk et al. 1985, 326)

An exception which Quirk et al. (1985, 327) state is with predeterminers such as “*all, both, or half.*” These words can belong to both the genitive NP and the superordinate NP, Quirk et al. (1985, 327) further give the example in (8) and explain: “In [7], the predeterminer *both* applies to *parents*, but in [8] *both* can only apply to *girls*’.”

(8) *both [the girl's] parents* [= *both parents of the girl*] [7]
[both the girls'] mother [= *the mother of both the girls*] [8]
 (Quirk et al. 1985, 327)

Because the determinative genitive is a central definite determiner, the superordinate NP is always definite, even though the genitive NP may have an indefinite article. This can be demonstrated by providing a corresponding *of*-construction, which always starts with definite determiner as in (9) and (10). To have an indefinite reference, we have to use the *of*-construction (11) (Quirk et al. 1985, 326–327).

(9) (a) *[a horse's] hind leg*
 (b) *[some people's] opinions*
 (c) *[the Italian government's] recent decision* (Quirk et al. 1985, 326)

(10) (a) *the hind leg of [a horse]*
 (b) *the opinions of [some people]*
 (c) *the recent decision of [the Italian government]* (Quirk et al. 1985, 327)

- (11) (a) *Susan's son*
(b) *a son of Susan* (Quirk et al. 1985, 327)

2.1.2.2 Genitive as Modifier

The descriptive genitive, on the other hand, does not refer to specific things or people but gives information about their types and Biber et al. (1999, 294–295) state that “they respond to the question ‘What type...?’ Rather than ‘Whose...?’”

Determiners and other modification preceding this type of genitive NP do not belong to this phrase but rather to the superordinate NP (Quirk et al. 1985, 327–328). The examples in (12) demonstrate this fact—because there is an indefinite article, it can only refer to the word *home* and not to the word *people*, since *people* is a plural noun and indefinite articles can be used only with single nouns. Therefore, the indefinite article belongs to the whole NP (*luxurious*) *old people's home*.

- (12) (a) *an old people's home*
(b) *a luxurious old people's home* (Huddleston and Pullum 2002, 469)

Descriptive genitives, Biber et al. (1999, 295) highlight, are similar to adjectives and other premodifiers, they “form an inseparable combination with the following noun and do not usually allow an intervening adjective” (13) and their corresponding preposition phrase is often a *for*-phrase (14).

- (13) (a) *a bird's nest, children's clothes*
(b) * *a bird's new nest, * children's new clothes* (Biber et al. 1999, 295)

- (14) (a) *children's clothes*
(b) *clothes for children* (Biber et al. 1999, 295)

Another feature of descriptive genitives with which they differ from determinative genitives is their possible idiosyncrasy as in (15) and also the fact that they share some qualities with compounds, for example single stress placed in the first word, that is, the genitive (Quirk et al. 1985, 328; Biber et al. 1999, 295).

- (15) (a) *a bull's eye*
 (b) *a hornet's nest* (Biber et al. 1999, 295)

Huddleston and Pullum (2002, 470) also claim that descriptive genitives “are a somewhat unproductive category,” because expressions in (16) (a) are quite common, while corresponding expression in (16) (b) are “quite marginal.”

- (16) (a) *a summer's day, a winter's day*
 (b) ? *a spring's day, ? an autumn's day* (Huddleston and Pullum 2002, 470)

2.1.2.3 Other Grammatical Categories

Another grammatical category of genitives, which all the three grammar books (Quirk et al. 1985, Biber 1999, Huddleston and Pullum 2002) mention, is the category of “elliptic genitives” (Biber 1999, 296–297) or “the independent genitive” (Quirk 1985, 329; Biber 1999, 297), examples provided in (17). The authors use different individual categories for this kind of genitive based on their classification, Huddleston and Pullum (2002) use three categories—“fused subject-determiner-head,” “oblique genitives” and “predicative genitive.” These are all types of genitives which are not followed by overt NP and, therefore, we cannot transform them into corresponding *of*-genitives. For this reason, they are excluded from the empirical studies in genitive choice (e.g. Ehret et al. 2014, Hinrichs and Szmrecsanyi 2007) and I will not include them in my thesis either.

- (17) (a) *Max's attempt wasn't as good as [Kim's].*
 (b) *She's [a friend of Kim's].*
 (c) *All this is [Kim's].* (Huddleston and Pullum 2002, 467)

2.1.3 Semantic Categorization

Quirk et al. (1985, 321-322) distinguish eight different meanings of genitive and present them with their “analogues,” i.e. how the genitive can be expressed by other words, for example as in (18). The meanings they outline are shown in (19): (a) possessive genitive, (b) subjective genitive, (c) objective genitive, (d) genitive of origin, (e) descriptive genitive, (f) genitive of measure, (g) genitive of attribute, and (h) partitive genitive.

- (18) (a) *my wife's father*
 (b) *My wife has a father.* (Quirk et al. 1985, 321)
- (19) (a) *Mrs Johnson's passport / Mrs Johnson has a passport.*
 (b) *her parents' consent / Her parents consented.*
 (c) *the boy's release / (...) released the boy.*
 (d) *the girl's story / The girl told a story.*
 (e) *a women's college / a college for women*
 (f) *ten day's absence / The absence lasted ten days.*
 (g) *the victim's courage / The victim was courageous.*
 (h) *the baby's eyes / The baby has (blue) eyes.* (Quirk et al. 1985, 321–322)

Nevertheless, Shumaker (1975) points out that dividing genitives into semantic categories can be problematic and therefore she suggests her own division. It is also grounded in paraphrases but instead of eight categories, she defines thirteen, which, as she says, better describe the meaning of genitives. Eight of her categories are more or less equivalent to those of Quirk et al. (1985), the five extra express the following relations (20): (a) “the ones who,” (b) “the X that Y verbs,” (c) “the PTA of which you are a member,” (d) “a family or a social relationship between the modifier and the headword,” and (e) “a head word that is located in space or time by the modifier.”

- (20) (a) *the magician's helpers / the ones who help the magician*
 (b) *Colonel McClure's chore / the chore that Colonel McClure performs*
 (c) *his band / the band of which he is a member*
 (d) *Paul's father / the father of whom Paul is son*
 (e) *the garden's idol / the idol in the garden* (Shumaker 1975, 73–80)

Kreyer (2003) then, for his research purposes, combines the two systems into one, which consists of 9 categories. He adopts five semantic categories which Quirk et al. (1985, 321–322) define—possessive, partitive, subjective, objective, attribute, and origin. From Shumaker's (1975) original system Kreyer (2003) uses (20)(d) which he calls “kinship,” and further he merges more of her categories in two distinct

classes (21): (a) “disposal”—“X makes use of Y” and (b) “Time & Space”—“(the) Y in X, (the Y for X).”

- (21) (a) *Peter’s doctor / Peter has the doctor at his disposal*
(b) *Detroit’s cold streets / the cold streets in Detroit*
Tomorrow’s weather / the weather for tomorrow (Kreyer 2003, 178)

This short summary implies that semantic categorization of genitives is indeed problematic and different authors modify it according to their needs and opinion on how many individual categories are necessary to properly depict the semantics of genitives.

2.1.4 Distribution

The Saxon genitive is, according to Quirk et al. (1985, 1277), mostly used with proper names and other nouns denoting humans. Animate nouns in general show a tendency for the Saxon genitive, though it depends on “how much” animate they are. Animals which are close to people in behavior or to which people show affection are more likely to be used with ’s than animals which do not show these properties (22). Inanimate objects then usually appear with the *of*-construction, though certain types of inanimate nouns (23) can be realized with the Saxon genitive, in order of the examples: (a) collective nouns, which refer to a group of people; (b) geographical names; (c) locative nouns; (d) temporal nouns; and (e) other nouns “of special relevance to human activity” (Quirk et al. 1985, 324).

- (22) (a) *the horse’s tail*
(b) *the dog’s collar* (Quirk et al. 1985, 324)

- (23) (a) *the government’s economic plans*
(b) *China’s development*
(c) *the school’s history*
(d) *today’s paper*
(e) *my life’s aim* (Quirk et al. 1985, 324)

Instances in which there is more or less free choice between the genitive forms also exist and will be dealt with further in this thesis.

2.2 *Of*-Construction

The *of*-construction is a prepositional phrase which can be an alternative to the Saxon genitive and “which is often equivalent in meaning to the genitive construction” (24) (Quirk et al. 1985, 1275–1277).

- (24) (a) *the earth’s gravity / the gravity of the earth*
(b) *a doctor’s degree / the degree of doctor*
(c) *ten day’s absence / an absence of ten days*
(d) *the party’s policy / the policy of the party*
(e) *the earth’s surface / the surface of the earth* (Quirk et al. 1985, 321–322)

Often, speakers can choose between the two genitive forms but in some cases, either Saxon genitive or the *of*-construction is strongly preferred (Biber et al. 2009, 300–302).

Regarding the grammatical categorization of genitives, it has been already shown in (10) that the determinative genitive can easily be re-phrased by the *of*-construction. The modifier genitive, though, as stated by Biber et al. (1999), is “frequently paraphrased by a *for*-phrase rather than an *of*-construction” (25). The *of*-construction is commonly used with inanimate nouns or with complex genitives (26) which would be problematic to express or to understand with the inflected genitive (Quirk et al. 1985, 1277–1282).

- (25) *children’s clothes ~ clothes for children* (Biber et al. 1999, 294–295)

- (26) (a) *?She is a man I met in the army’s daughter.*
(b) *She is the daughter of a man I met in the army.* (Quirk et al. 1985, 323)

3 Overlapping Distribution

Although the Saxon genitive and the *of*-construction have their specific environments in which they are used, some cases exist in which both of them are equally acceptable (27) (Quirk, 1985, 1275–1277). The speakers then have a choice which of the two they will use. The choice, though, is not completely free but the speaker chooses one or the other based on several factors (Biber et al. 1999, 300–301).

- (27) (a) *the city's population*
(b) *the population of the city* (Quirk et al. 1985, 1276)

3.1 Phonological Factors

3.1.1 Sibilancy

With proper names that end with a sibilant, the speakers can either use the genitive *-s* and pronounce it as /iz/ or they can form the plural with zero genitive (Quirk et al. 1985, 320–321). According to the phonetic rules concerning the genitive inflection, if the word which ends in a sibilant is a common noun, the pronounced /iz/ should be obligatory. Hinrichs and Szmrecsanyi (2007) and Ehret et al. (2014) examine, if the final sibilant, both in cases where the zero genitive is an option and in cases where it is not, influences the speaker in the choice between the forms of the genitive they use. According to their hypotheses, when there is a final sibilant present, there might be a tendency to avoid the inflectional *-s* and use the *of*-phrase instead. Therefore, construction in (28) (a) should be preferred to those in (28) (b). While Ehret et al. (2014), based on their results, dismiss the final sibilancy as “less important predictor,” Hinrichs and Szmrecsanyi (2007) state that their corpus data show to support this tendency, that is, if the possessor ends in a final sibilant, it is more likely to occur with the *of*-construction.

- (28) (a) *But that is the sad and angry side of Bush.* (Hinrichs and Szmrecsanyi 2007)
(b) *But that is Bush's sad and angry side.*

3.1.2 Rhythm

Another phonological factor, investigated by Ehret et al. (2014), is rhythm. As they (Ehret et al. 2014) explain, rhythm in a spoken language is achieved by regular alternation of stressed and unstressed syllables and speakers should prefer such

constructions which avoid the contact of stressed or unstressed syllable clusters. Their results, though, do not support this hypothesis as constructions which show strong eurhythmic patterns do not prefer the other genitive variation even when it is more rhythmic.

3.2 Morphological and Syntactic Factors

Among morphological and syntactic factors which can affect the genitive variation is heaviness, or end-weight (Quirk et al. 1985, 1282). The end-weight principle, according to Biber et al. (1999, 304–305) and Quirk et al. (1985, 1281–1282), means that the length of NPs has an effect on the speaker’s choice between the Saxon genitive and the *of*-phrase, putting the longer elements to the end. There are more ways to measure the length of the constituents, as for example Ehret et al. (2014) or Wolk et al. (2013) state: it can be simply measured by the number of individual words or by the number of syllables, stresses or phonemes. Wolk et al. (2013) then choose to measure the length by the number of orthographic characters because, as they explain, using this method, they can measure also the length of individual words, if the genitive NPs (NP1 is the possessor and NP2 is the possessum¹) consist each of only one word. Even in such cases the NPs can be sensitive to end-weight, Wolk et al. (2013) suggest that proper names in (29)(a) are “heavier” than those in (29)(b).

- (29) (a) *Apollonius, Sylvestre*
(b) *Tom, Dick* (Wolk et al. 2013, 395)

When the NPs consist of more than one word, we have to measure the length or complexity of the whole phrase, where the NP can further be modified by, for example, a prepositional phrase (Ehret et al 2014). Modified NPs can, then, create complex structures, which are more likely to be put to further position in the genitive. Biber et al. (1999) further specify:

¹ The terms “possessor” and “possessum” are used by many authors, for example Ehret et al. (2014), Hinrichs and Szmrecsanyi (2007), Rosenbach (2008) or Wolk et al. (2013), even though the semantic relations expressed by genitives are not always of possession. Nevertheless, these terms effectively show the relation between the two genitive NPs.

Most typically, s-genitive constructions are used in one-word dependent phrases. In contrast, of-phrases are commonly used in much longer dependent phrases. (Biber et al. 1999, 304)

Therefore, genitives in (30) should be more likely to occur than those in (31).

- (30) (a) [_{NP2} *the hat*] of [_{NP1} *the lady a met in the shop*] (Quirk et al. 1985, 1282)
 (b) [_{NP1} *the city*]'s [_{NP2} *usual rush-hour traffic*]
 (Huddleston and Pullum 2002, 478)
 (c) [_{NP2} *the creations*] of [_{NP1} *a relatively young designer from Italy*]
 (Huddleston and Pullum 2002, 478)
- (31) (a) *? [_{NP1} *the lady I met in the shop*]'s [_{NP2} *hat*] (Quirk et al. 1985, 1282)
 (b) [_{NP2} *the usual rush-hour traffic*] of [_{NP1} *the city*]
 (Huddleston and Pullum 2002, 478)
 (c) [_{NP1} *a relatively young designer from Italy*]'s [_{NP2} *creations*]
 (Huddleston and Pullum 2002, 478)

All the studies conducted by Hinrichs and Szmrecsanyi (2007), Wolk et al. (2013) and Ehret et al. (2014) agree that end-weight is a reliable factor in predicting the genitive choice. Wolk et al. (2013) and Ehret et al. (2014) also remark that longer NPs follow the end-weight rule more consistently than shorter NPs and the reliability is higher in possessors than in possessums. Possessums, based on their results, seem to be affected by end-weight more in texts from later periods, suggesting a diachronic change (Wolk et al. 2013).

Kreyer (2003) examines differences between premodification and postmodification of each of the NP separately, observing if and how they influence the choice between the Saxon genitive and the *of*-phrase. Overall, his results show that both premodification and postmodification influence the genitive choice. To specify, premodification of NP1 and NP2 influence the choice as shown above, that is, the heavier constituents tend to appear at the end. Regarding postmodification, Kreyer (2003) implies that other than end-weight, a *proximity-principle* is a decisive factor—“those constructions are usually favoured which guarantee that related constituents are in vicinity of one another” (201). The example in (32) shows that

when the related elements are separated by another phrase, the final structure is, as Kreyer (2003) suggests, of doubtful acceptance.

- (32) (a) *the impact of agriculture on environment*
(b) *?the impact on environment of agriculture* (Kreyer 2003, 197)

3.3 Semantic Factors

3.3.1 Animacy

Animacy is among the most decisive factors in genitive choice (Biber 1999, 306–307). In English, animacy is not morphologically marked but it may be expressed in 3rd person pronouns, for example *he, she, his, her, himself, herself* and *wh*-pronouns, such as *who* and *which* (Quirk et al. 1985, 314). As animate nouns in English are considered those which refer to humans (33)(a) or to higher animals “with a special concern” to people (33)(b) (Quirk et al. 1985, 315–317).

- (33) (a) *Ann, lady, family*
(b) *dog* (Quirk et al. 1985, 1277)

As Quirk et al. (1985, 316–317) state, collective nouns, for example *company, government, the press* or *the public* also show some degree of animacy, because they can be perceived by speakers as a group of people rather than inanimate nouns. They can therefore appear with plural verb form in the singular, especially in British English, and they also show a higher tendency to take the Saxon genitive form (Quirk et al. 1985, 324).

Quirk et al. (1985, 317–318) further report that geographical names (34)(a) and locative nouns (34)(b) show a variation in animacy, as well. When they are seen as the people forming, for example, the state or the city, they take the Saxon genitive (35)(a) but when they are meant strictly geographically, they tend to appear with the *of*-construction (35)(b) (Quirk et al. 1985, 324).

- (34) (a) *Europe, the United States, London, Harvard* (Quirk et al. 1985, 324)
(b) *world, country, school*

- (35) (a) **China's map*
 (b) *the map of China* (Quirk et al. 1985, 1277)

Among other lexical classes which also strongly prefer the Saxon genitive are, according to Quirk et al. (1985), temporal nouns (36)(a) and nouns “of special relevance to human activity” (36)(b).

- (36) (a) *a day's work, this year's sales*
 (b) *my life's aim, love's spirit, the novel's structure* (Quirk et al. 1985, 324)

The temporal nouns together with the animacy classes can be arranged into a scale (Figure 1), which shows the probability of the noun appearing with the Saxon genitive or the *of*-phrase. The nouns on the left tend to take the Saxon genitive form, while the more we move to the right, the more probable it is that the noun is used with an *of*-phrase (Rosenbach 2008).

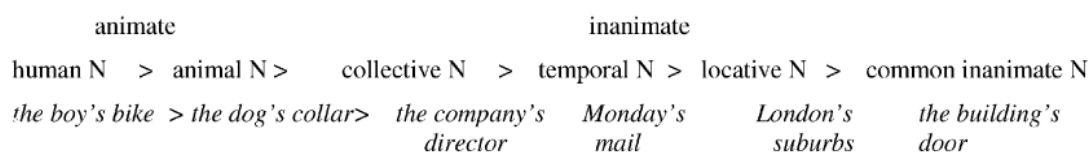


Figure 1 – Animacy scale (Rosenbach 2008)

Zaenen et al. (2013) particularly highlight the importance of considering animacy in grammatical variations, saying that it is “an important category” and though it may be difficult to create clear animacy categories, the distinctions between individual animacy classes are significant in natural language analysis. They also point out that the distinctions can differ between languages and there also might be variability within one language. Furthermore, the perception of animacy may change based on the context and also over time, which means that grammatical variations, including the genitive choice, should be analyzed from more than one point of view.

Consequently, linguists include animacy as a relevant factor in the genitive choice in their studies and they (Ehret et al. 2014, Hinrichs and Szmrecsanyi 2007, Kreyer 2003, Rosenbach 2008, Wolk et al. 2013) suggest that animacy is among the most influencing factors. Rosenbach (2008) proves that animacy, though it often

appears in correlation with other factors, is a separate feature which affects the genitive choice and Ehret et al. (2014) present animacy as “the most important factor” in their study.

3.3.2 *Other Lexical Classes*

Other lexical classes which affect the genitive choice are, according to Quirk et al. (1985, 325) superlatives and ordinals. As they say, genitives which appear with these words usually prefer the Saxon genitive and though they might be expressed by a prepositional phrase, it is frequently the preposition *in* rather than *of* (37).

- (37) (a) *the world’s best universities ~ the best universities in the world*
(b) *this country’s only university ~ the only university in this country*
(Quirk et al. 1985, 325)

Also “expression with *edge, end, surface, for ... sake*” often appear with the Saxon genitive but the *of*-construction is also possible (38), though, when such expressions are lexicalized (39), the Saxon genitive is the only realization (Quirk et al. 1985, 325–326).

- (38) (a) *the water’s edge*
(b) *the edge of the water* (Quirk et al. 1985, 325)

- (39) *money’s worth, at arm’s length, within arm’s reach* (Quirk et al. 1985, 326)

3.3.3 *Semantic Roles*

The relations which the genitive constructions represent can also contribute to the inclination towards one form or the other, Badulescu and Moldovan (2009) argue that the two genitive variations do not have the same semantic interpretation because in some cases the two constructions cannot be both used. They provide an example of a *part-whole* relation between the nouns *silk* and *dress*. While the *of*-construction is completely grammatical and semantically acceptable, the Saxon genitive counterpart cannot be used (40).

- (40) (a) *dress of silk*
(b) **silk’s dress* (Badulescu and Moldovan 2009, 217)

Further in their study, Badulescu and Moldovan (2009) examine which semantic relations the Saxon genitive and the *of*-construction form out of 35 possible semantic meanings. The results then show that the two forms appear in only 19 relations and although there were examples of both Saxon genitive and the *of*-construction in all of the 19 categories, some were strongly preferred by one or the other. The Saxon genitive most frequently appeared in *possession*, *kinship* and certain types of *part-whole* relations, the *of*-construction was commonly used with specific *part-whole* relations such as the one in (40) and then in *measure* and *theme* relations. This suggests, as Badulescu and Moldovan (2009) hypothesized, that the two constructions prefer different semantic classes and even within one category their distribution might involve meaning differences.

3.4 Pragmatic Factors

Wider context in which the genitive is used may also influence the genitive choice (Biber et al. 1999, 305–307). Among the specific contextual factors are topicality and language economy-related factors.

3.4.1 Topicality

The information which has already been given or which is known is usually put before the new information (Biber et al. 1999, 305). Quirk et al. (1985, 1282) define the genitive choice regarding topicality as follows:

The genitive (N1's N2) is generally favoured when N2 has a higher communicative value than does N1 (example [1]), whereas the *of*-construction (N2 of N1) is preferred when the thematic distribution is the reverse (example [2]):

The speaker said that, among the global problems that face us now, the chief one is the world's economy. [economy is in focus] [1]

He went on to say, however, that in order to succeed we must first tackle the economy of the industrialized nations, which is the basis for the sound economy of the world. [world is in focus] [2]

(Quirk et al. 1985, 1282)

Ehret et al. (2014) include topicality in their study, though they express it as “definiteness” because, as they argue, the definite NP is considered as “given

information.” Their results indicate that definiteness is the third most important factor in genitive choice, even though, as they remark, proper names prefer the Saxon genitive much more reliably than other definite NPs. Hinrichs and Szmrecsanyi (2007) render the information status as epiphenomenal to factors such as end-weight.

3.4.2 Economy-Related Factors

Hinrichs and Szmrecsanyi (2007) include economy-related factors among other pragmatic factors which can influence the genitive choice. If a text is lexically dense, the author needs to “compress” information, which can be done, as they suggest, by the Saxon genitive, which is “more economic coding option” compared to *of*-construction.

The results of the study conducted by Hinrichs and Szmrecsanyi (2007) suggest that, generally, Saxon genitive is used more often in texts with high lexical density.

3.4.3 Thematic Genitives

Hinrichs and Szmrecsanyi (2007) also suggest “thematic genitives,” also labeled “text frequency of the possessor head,” as a feature that can take part in the choice between the two genitive forms. It implies that nouns which do not usually appear with Saxon genitive can use this form if it is in a specialized text dealing with the topic of the noun, which also means that the text frequency of the noun will be higher.

The results of the study, as Hinrichs and Szmrecsanyi (2007) interpret them, seem to follow this prediction, that is, if a text shows higher frequency of a specific noun, the probability of it being used with Saxon genitive also increases.

3.4.4 Persistence

Hinrichs and Szmrecsanyi (2007) suggest that, when a person hears a certain phrase, it is likely that the person will use this phrase themselves later, or if a person uses one phrase in a text, it is possible that they will use it again further in the text. They call this phenomenon “persistence” and it can be, according to them, applied to genitive variation as well. Hinrichs and Szmrecsanyi (2007) therefore examine if a certain preceding genitive forms increase the chance of that particular genitive form

being used again. Their results seem to imply that “persistence” also contributes to the genitive choice.

3.4.5 *Nested Genitives*

Language users tend to avoid complex structures, which can be hard to understand (Hinrichs and Szmrecsanyi 2007). For that reason, if there is a structure which consists of more than one *of*-phrase, speakers will change one of the phrases into Saxon genitive and vice versa (41).

- (41) (a) *the bride’s father’s recent death*
(b) *the recent death of the bride’s father*

(Hinrichs and Szmrecsanyi 2007, 456)

The nested genitives again proved to show the expected tendency in the study of Hinrichs and Szmrecsanyi (2007).

Even though the pragmatic factors have an influence on the genitive choice, it is comparably smaller to the influence of semantic and lexical factors (Hinrichs and Szmrecsanyi 2007; Ehret et al. 2014).

4 Genitive Shift

The choice between the two genitives is not influenced only by the factors mentioned in the third chapter; it also varies in time and based on the variety of English (Rosenbach 2002; Hinrichs and Szmrecsanyi 2007).

4.1 Historical Changes

Rosenbach (2002) presents a study on how the two genitive forms were used throughout history. According to her literature overview and her corpus data analysis, Saxon genitive and the alternate *of*-construction usage has changed several times. In Old English period, Rosenbach (2002) claims, Saxon genitive was the dominant structure but slowly the *of*-construction was spreading, until it was the leading variant in Middle English period. Then, according to Rosenbach's (2002) data, in Early Modern English, Saxon genitive started to be favored again. She further states that in these changes, animacy and topicality were among the most decisive factors. This short historical overview shows that the usage of the two genitive forms is not constant and that the preference towards one form or the other can change.

Regarding the preference in English spoken nowadays, Hinrichs and Szmrecsanyi (2007) state that "since the 1960s, the relative frequency of the *s*-genitive has increased substantially" and "*s*-genitive in particular has come to be associated, over time, with more inanimate possessors."

4.2 Animacy Concept

Rosenbach (2008) examines animacy, as one of the crucial factors in genitive choice, in an attempt to explain the base for the diachronic genitive shift. As she points out, noun classes which are in the middle between animate and inanimate on the animacy scale (Figure 1, p.20), such as collectives or geographical nouns, can be perceived either as animate or inanimate based on what interpretation the speaker chooses. Rosenbach (2008) provides the example of *university*, which can be seen as an institution or as the people who work or study there. According to the animate or inanimate interpretation the speaker can incline more towards Saxon genitive or the *of*-genitive. As a result, even though *university* is not animate, it can be seen as animate.

In their study, Nieuwland and Van Berkum (2006), present that the animacy concept can be twisted. In their experiments, they show that, given sufficient context, i.e. portraying an inanimate object with human-like qualities repeatedly, the subjects start to accept these changes in animacy. Moreover, Nieuwland and Van Berkum (2006) demonstrate that, in a specific context like in (42), the subjects had shown greater rejection towards the version where the peanut was suddenly given standard “peanut-like” qualities, specifically “being salted,” than when the peanut was further described as “being in love”.

- (42) *A woman saw a dancing peanut who had a big smile on his face. The peanut was singing about a girl he had just met. And judging from the song, the peanut was totally crazy about her. The woman thought it was really cute to see the peanut singing and dancing like that. The peanut was salted / in love, and by the sound of it, this was definitely mutual. He was seeing a little almond.* (Nieuwland and Van Berkum 2006, 1106)

Zaenen et al. (2004) agree with Nieuwland and Van Berkum (2006) that animacy cannot be objectively measured and that it depends on groups of speakers and the context, for example the use of metaphor or metonymy, whether the word is perceived as animate or inanimate.

Some nouns are more prone to evoking human-like qualities; Kreyer (2003) defines for his research purposes a special category for “inanimate personified nouns” where he includes celestial bodies (43) (a), machines, and means of locomotion (43) (b). In his results he shows that compared to animate nouns, “the preference for genitives is considerably lower for personified nouns but still significant.” Zaenen et al. (2004) also propose a separate category for vehicles for the reason that “it has been observed that these are treated as living beings in some linguistic contexts.” Rosenbach (2008) further explains that while it was and still is common to use Saxon genitive with ships and boats because they “are often assigned human, particularly feminine gender in English,” it is possible that this usage of Saxon genitive with ships might “analogically extend” to other means of locomotion.

- (43) (a) *the sun, the moon, the stars*
(b) *ship, boat, vessel* (Kreyer 2003, 174)

4.3 English Variety

Rosenbach (2002) and Hinrichs and Szmrecsanyi (2007) agree that Americans use Saxon genitive more often than British speakers in cases where *of*-construction would normally be preferred, that is, with inanimate nouns. Hinrichs and Szmrecsanyi (2007) consider “Americanization” as a possible factor for more Saxon genitives in American English than in British. “Americanization,” they explain, means that a certain linguistic feature, for example frequent usage of Saxon genitive with inanimate nouns, first appears in American English and later it is adopted by British English. In an answer to the question why Americans started using Saxon genitive with inanimate nouns Hinrichs and Szmrecsanyi (2007) disagree with Rosenbach (2008) that the genitive shift would be caused by changes in speakers’ perception of animacy, in fact they consider more factors, especially end-weight and pragmatic factors, which generally influence the genitive choice.

Hinrichs and Szmrecsanyi (2007) note that animacy of possessors influences the genitive choice less in American English than in British English and also that Americans consider more the length of possessums while deciding between the genitive forms than the British. Regarding genitive shift, they believe that pragmatic factors are more important than animacy. More precisely, thematic genitives seem to appear more in later periods and with higher frequency of Saxon genitives, especially in American English and “type-token ratio” also seem to affect the genitive choice greatly. The press language that Hinrichs and Szmrecsanyi (2007) analyzed appears to follow pragmatic factors, more accurately those economy-related and topicality. American writers then, according to Hinrichs and Szmrecsanyi (2007), show bigger tendency to consider language economy while writing and consequently they use more Saxon genitives than British writers, even in contexts which usually favor the *of*-construction.

4.4 Overview

The choice between genitives is influenced by many factors, the most important seem to be animacy and end-weight (Kreyer 2003, Hinrichs and Szmrecsanyi 2007, Rosenbach 2008, Wolk et al. 2013, Ehret et al. 2014). Statistically, speakers use Saxon genitive with inanimate nouns more than they used to and in American English the Saxon genitive is more frequent than in British English (Hinrichs and Szmrecsanyi 2007, Rosenbach 2008). Even though the reasons for this genitive shift

are not completely agreed upon—Rosenbach (2008) suggests changes in perception of animacy while Hinrichs and Szmrecsanyi (2007) incline to language economy factors—the tendency towards Saxon genitive is undeniable.

5 Research Questions and Methodology

5.1 The Word Sample

I base the word sample for my corpus research on the information provided in the literature overview. More specifically, I examine the theory mentioned by Rosenbach (2008) that, because of common usage of Saxon genitive with ships and boats, speakers can analogically start using the Saxon genitive also with other nouns denoting means of transport.

1.	(aero)plane + airplane ²
2.	(bi)cycle
3.	boat
4.	bus
5.	car
6.	helicopter
7.	lorry + truck ³
8.	moped
9.	(motor)bike
10.	ship
11.	submarine / sub
12.	tanker
13.	taxi
14.	train
15.	tram
16.	tube (train) / underground (train) + subway ⁴
17.	van
18.	yacht

Table 1 – Means of Transport (in alphabetical order)

² Since I search data both in British and American English, I add the word *airplane* because LDOCE Online states it as the American equivalent (*Longman Dictionary of Contemporary English Online*, s.v. “aeroplane,” accessed February 18, 2015, <http://www.ldoceonline.com/>).

³ I include the word “truck” as the American English (*Longman Dictionary of Contemporary English Online*, s.v. “lorry,” accessed February 18, 2015, <http://www.ldoceonline.com/>).

⁴ According to LDOC Online, *subway* is the American English term to British *tube* or *underground* and I also include it to my sample of words (*Longman Dictionary of Contemporary English Online*, s.v. “tube; underground,” accessed February 18, 2015, <http://www.ldoceonline.com/>).

To select specific words out of all possible means of transport, I use materials designed for learners of English, where there are words often arranged by their semantic category. The Learn English Online Network (LEO Network)⁵ is “a not-for-profit organisation registered in the UK [...] providing support to ESL learners and teachers since 1999” (LEO Network, 2015). Their materials are accessible online and they also provide topic-related vocabulary lists, such as means of transport. The means of transport which they illustrate are in Table 1.

Since the means of transport in number 16 is a compound of two words, the final word being *train*, and *train* itself is placed under the number 14, I decide to include in my research only the first words, that is, *tube* and *underground*, which both are, according to LDOCE Online, independent nouns used to describe means of transport⁶.

5.2 Research Questions

Based on the literature overview provided, I define three research questions, which I use in the research part of my thesis. The research is conducted using the set of words introduced above.

Firstly, I compare the usage of Saxon genitive between British and American English to see, if the corpus data on means of transport correspond to the notion that the Americans use Saxon genitive more frequently than the British (Rosenbach 2002, Hinrichs and Szmrecsanyi 2007).

Secondly, I focus more on American English and I provide a historical development of the usage of Saxon genitive with means of transport. According to the studies by Rosenbach (2002) and Hinrichs and Szmrecsanyi (2007), the Saxon genitive frequency should have a rising tendency.

Lastly, I examine three factors shown in chapter 3—end-weight, nested genitives, and animacy categories of possessums—both with the Saxon genitive and the *of*-construction data to determine whether the factors follow the tendencies found in literature with words denoting means of transport.

⁵ www.learnenglish.de

⁶ (*Longman Dictionary of Contemporary English Online*, s.v. “tube; underground,” accessed February 18, 2015, <http://www.ldoceonline.com/>).

5.3 Corpora

For my research, I use three corpora—Corpus of Contemporary American English (COCA), Corpus of Historical American English (COHA), both created by Mark Davies, and British National Corpus (BNC), originally created by Oxford University Press.

5.3.1 COCA

As Davies (2008) describes COCA on his website⁷, it contains over 450 million words of text, which are divided into spoken, fiction, popular magazines, newspapers, and academic texts. The collected data span from the year 1990 and are regularly updated; the last update is from summer 2012. It also allows the data to be displayed by time intervals of five years, except for the most recent interval, which is from 2010–2012.

5.3.2 COHA

COHA is a historical corpus containing “400 million words of text of American English from 1810 to 2009” (Davies, 2010). It is not divided into different types of texts as COCA but it allows to look for changes, for example in frequency or meaning, over time. I use it to display the frequencies of genitive usage with means of transport; the corpus is able to show individual 10-year intervals.

5.3.3 BYU-BNC

BNC, as Davies (2004) informs, is freely accessible on the internet in several versions, I use the version and the interface of Mark Davies. It contains 100 million words from the period of 1980s to 1993 and the texts are divided into sub-sections of spoken, fiction, magazine, newspaper, non-academic, academic and other.

5.4 Searching Corpora

To construct appropriate search queries for searching the corpora, I examine the structure of an NP. Huddleston and Pullum (2002, 329–333) state that an NP contains a head of the NP, a determiner and optionally modifiers. A genitive NP can function as a determiner of another NP, for example (44) (a). As a NP itself, it has its own determiner, which can vary (44) (b), (c), and it can also have its own modification (44) (d).

⁷ <http://corpus.byu.edu/coca/>

- (44) (a) $[NP[genitive\ NP\ a\ boat's]\ hull]$ (COCA: 2009 MAG MotorBoating)
 (b) $[genitive\ NP\ [determiner\ the]\ [head\ boat's]]\ hull$ (COCA: 2008 FIC Analog)
 (c) $[genitive\ NP\ [determiner\ your]\ [head\ boat's]]\ hull$
 (COCA: 2011 FIC FantasySciFi)
 (d) $[genitive\ NP\ [determiner\ the]\ [modifier\ police]\ [head\ boat's]]\ hull$
 (COCA: 2003 FIC FantasySciFi)

The search query in Figure 2 would enable to show results which would account for every possible combination of a determiner and premodifiers since the elements left to the head are not limited. Nevertheless, this query would also display results, where the 's would not be the genitive but the verb *be* (45).

The image shows a search interface with a blue header bar labeled 'DISPLAY' and a search string input field containing 'boat's'. Below the search string, there are four radio buttons: 'LIST' (selected), 'CHART', 'KWIC', and 'COMPARE'. Underneath, there are three sections: 'WORD(S)', 'COLLOCATES', and 'POS LIST', each with a question mark icon to its right. At the bottom, there are three buttons: 'RANDOM' (highlighted in yellow), 'SEARCH', and 'RESET'.

Figure 2 – Search Query

- (45) *the boat 's not half-full* (COCA: 2012 FIC Bk:LifeboatNovel)

To exclude examples, where the 's is a verb, the query has to be changed. Because the genitive NP is a determiner of another NP, there has to be a head noun following the genitive NP. Search query in Figure 3 accounts for tokens where the genitive NP is followed immediately by a noun.



Figure 3 – Search Query for Saxon Genitive Followed Directly by a Noun

These results include cases where a) the NP consists of only the head noun and the genitive NP as the determiner (46), b) the head noun is further postmodified (47), and c) the noun is not the head noun but a part of a compound noun or a modifier of the head (48). The left-side part of the query is still free for any determiner and modifiers of the genitive NP.

(46) *the boat 's engine throttled up* (COCA: 2009 FIC Bk:Castaways)

(47) *The test boat 's performance with the Volvo power*
(COCA: 2006 MAG MotorBoating)

(48) *a new boat 's engine cover* (COCA: 1997 MAG MotorBoating)

The head of a noun can also be premodified (Huddleston and Pullum 2002, 330–331). According to Biber et al. (1999, 674–575), the premodification is realized mostly by adjectives, participial premodifiers and other nouns. The premodification by other nouns is already accounted for in the query in Figure 3, and to include the premodification by adjectives and participial modifiers, I constructed the query in Figure 4.

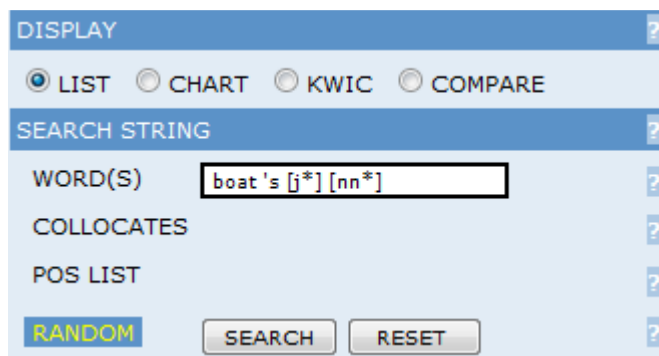


Figure 4 – Search Query for Saxon Genitive Followed by a Premodified Noun

This second query accounts for cases, where a) the head noun is premodified by one adjective (49), and b) the head is premodified by a noun and an adjective (50).

(49) *His boat 's white exterior was marred* (COCA: 2008 NEWS Houston)

(50) *a centerpiece in the boat 's elegant dining room*
(COCA: 1999 MAG MotorBoating)

The participial premodifiers, Biber et al. (1999, 575) highlight, can be “adjectival” or they can “have the character of noun” and in some instances their part of speech (POS) can be “unclear.” In corpora, the participial premodifiers, in cases where the POS is not clear, are tagged both as an adjective and as a past participle of a verb (Figure 5)⁸. Therefore, the participial modifier should be displayed using the query in Figure 4. In case it was tagged as a noun, it would be displayed using the query in Figure 3.

	<input type="checkbox"/>	CONTEXT
1	<input type="checkbox"/>	WRITTEN (JJ@_VVN) REASONS (NN2)

Figure 5 – Corpora Tags for Participial Modifiers

Though the premodifiers of the head can be multiple, Biber et al. (1999, 597) states that in 70–80% cases the head noun has only one modifier. Therefore, I

⁸ The searched phrase “written reasons” is taken from Biber et al. (1999, 575) as his example of participial modifier.

decided not to include another query which would search for multiple adjectival premodification or adjectives which are themselves modified by an adverb.

Regarding postmodification, the head noun can be freely postmodified, there is no restriction on postmodification in either of the two queries. The restriction is, though, on postmodification of the genitive NP, as the means of transport is directly followed by the genitive 's. The postmodification is possible but, as Huddleston and Pullum (2002, 478) state, “heavy dependents [... have tendency ...] to be positioned to the right of the head,” therefore, (51) (b) is preferred to (51) (a).

(51) (a) *a relatively young designer from Italy's creations*

(b) *the creations of a relatively young designer from Italy*

(Huddleston and Pullum 2002, 478)

Biber et al. (1999, 294) mention that Saxon genitive with plural nouns is less common than with singular nouns. After examining preliminary (without further manual sorting) data of plural genitives in COCA and BNC, available in Table 2, the frequencies are indeed small and therefore, I further restrict my research only to singular nouns.

The BYU corpora are preset to search for only the first one hundred of hits, therefore, to obtain all the results for the queries, I change the frequency for number of hits to 10,000 (Figure 6).

	Means of Transport - Plural	COCA	BNC
1.	ships	143	57
2.	cars	85	19
3.	trucks	27	0
4.	boats	25	7
5.	planes	24	1
6.	trains	9	5
7.	bikes	7	0
8.-9.	helicopters	6	0
	subs	6	8
10.	yachts	5	2
11.-13.	bicycles	4	0
	tubes	4	2
	vans	4	0
14.	airplanes	3	0
15.-17.	cycles	2	0
	buses	2	0
	submarines	2	2
18.-20.	aeroplanes	1	0
	tankers	1	0
	trams	1	0
21.-25.	lorries	0	3
	motorbikes	0	0
	taxis	0	1
	undergrounds	0	0
	subways	0	0

Table 2 – Total Frequencies of Plural Genitives in COCA and BNC

The image shows a search interface with the following settings:

- HIDE OPTIONS** (with a help icon)
- # HITS**: Input field with "10000"
- FREQ**: Input field with "10000"
- KWIC**: Dropdown menu with "100" selected
- GROUP BY**: Dropdown menu with "WORDS" selected
- DISPLAY**: Dropdown menu with "RAW FREQ" selected
- SAVE LISTS**: Dropdown menu with "NO" selected

Figure 6 – Frequency for Number of Hits

After acquiring the data for each query, I manually examine each token and exclude those a) which do not refer to a means of transport but to a person (52) or which have a different meaning (53), b) where the 's is not a Saxon genitive

morpheme but contracted form of the verb “*to be*” followed by a verb in *-ing* form which is in the corpora tagged as a noun (54), and c) where, after repeated attempts, the corpora does not display any text or further information to the token even though it is included in the results and counted in the total number of results.

(52) *a low hill not far from Pham Van 's store* (COCA: 1990 FIC Mov: Tremors)

(53) *shifting the tube 's position until it balances on the rod*
(COCA: 1995 MAG Astronomy)

(54) *and that van 's still runnin' every Friday* (COCA: 1992 FIC Bk: Prophet)

Further, because COCA and BNC do not have the same amount of data, and also COHA does not have the same amount of data for every period, I counted relative frequencies per million words (pmw) to compare the results from each corpus and from the individual periods of COHA.

6 Corpus Data

6.1 British and American English

The literature states that in American English the Saxon genitive is generally more frequent than in British English (Rosenbach 2002, Hinrichs and Szmrecsanyi 2007) and also that American English is more open to accepting the Saxon genitive with inanimate nouns than British English (Szmrecsanyi 2007). Therefore, I hypothesize that the Saxon genitive with means of transport will also be more frequent in American English.

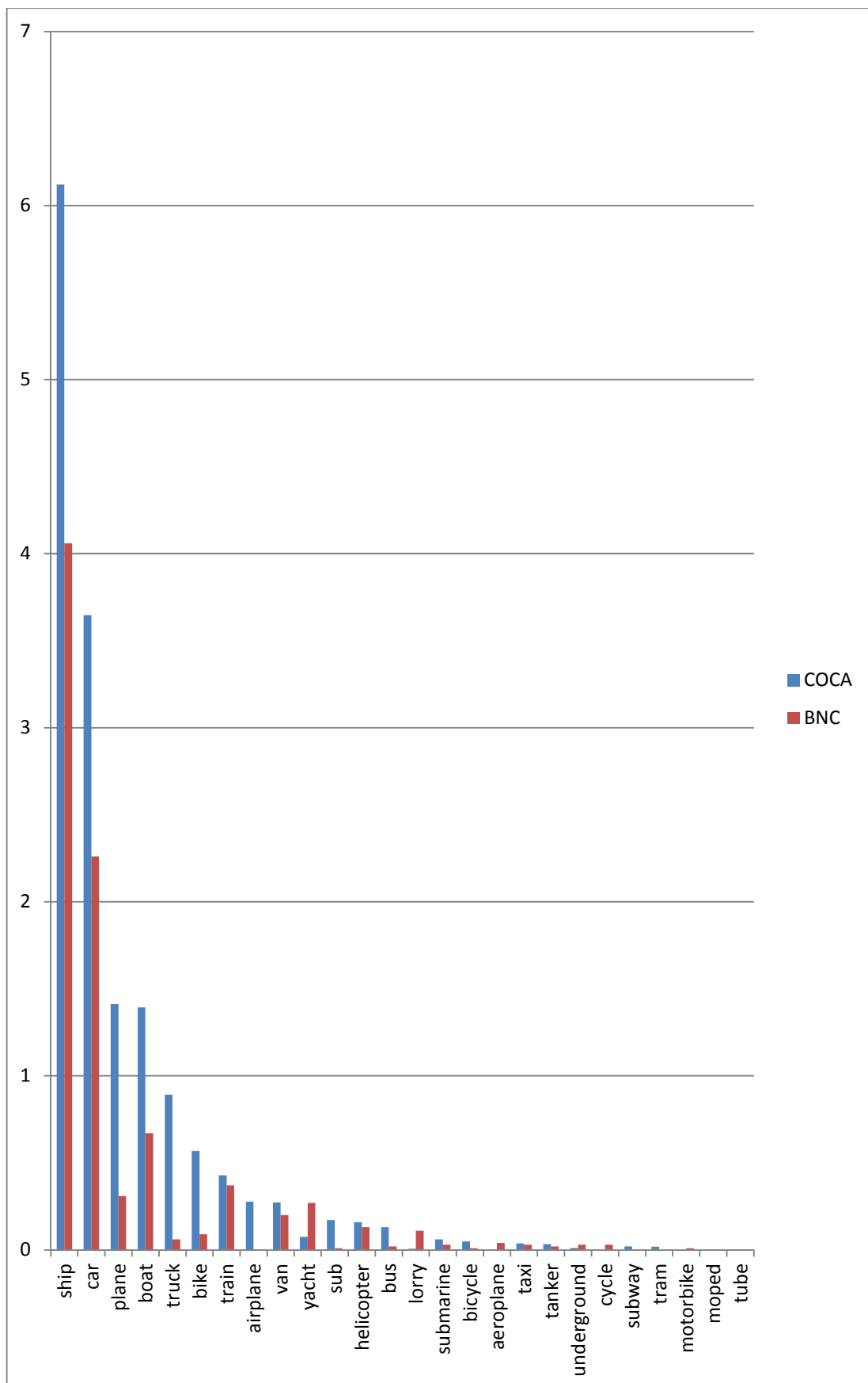
	Means of Transport	COCA
1.	ship	2754
2.	car	1641
3.	plane	636
4.	boat	627
5.	truck	401
6.	bike	256
7.	train	193
8.	airplane	124
9.	van	123
10.	sub	77
11.	helicopter	72
12.	bus	59
13.	yacht	34
14.	submarine	27
15.	bicycle	22
16.	taxi	17
17.	tanker	15
18.	subway	9
19.	tram	8
20.	underground	5
21.	lorry	3
22.-23.	aeroplane	2
	cycle	2
24.-26.	moped	0
	motorbike	0
	tube	0

Table 3 – Occurrence of Saxon Genitives in American English in Descending Order
– Absolute Numbers, Unsuitable Tokens Manually Excluded

	Means of Transport	BNC
1.	ship	406
2.	car	226
3.	boat	67
4.	train	37
5.	plane	31
6.	yacht	27
7.	van	20
8.	helicopter	13
9.	lorry	11
10.	bike	9
11.	truck	6
12.	aeroplane	4
13.-16.	cycle	3
	submarine	3
	taxi	3
	underground	3
17.-18.	bus	2
	tanker	2
19.-21.	bicycle	1
	motorbike	1
	sub	1
22.-26.	airplane	0
	moped	0
	subway	0
	tram	0
	tube	0

Table 4 - Occurrence of Saxon Genitives in British English in Descending Order – Absolute Numbers, Unsuitable Tokens Manually Excluded

Table 3 and Table 4 provide the incidence of Saxon genitives in American and British English in absolute numbers after the unsuitable tokens were excluded. The comparison of Saxon genitives in the two English varieties can be seen in Graph 1, where the relative frequencies per million words are displayed.



Graph 1 – Relative Frequencies pmw of Saxon Genitives in COCA and BNC in Descending Order

6.2 Historical Development in American English

Rosenbach (2002) and Hinrichs and Szmrecsanyi (2007) suggest that the usage of Saxon genitive is rising, therefore, my hypothesis states that the frequency of Saxon genitive with means of transport will have a rising tendency as well.

	Means of Transport	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	TOTAL
1.	ship	4	21	118	138	149	121	109	115	195	112	1082
2.	boat	3	7	25	33	73	35	35	26	37	17	291
3.	yacht	0	0	6	0	0	1	0	3	6	1	17
4.	train	0	0	0	0	0	0	0	1	3	1	5
5.	car	0	0	0	0	0	0	0	0	2	1	3
6.-7.	aeroplane	0	0	0	0	0	0	0	0	1	0	1
	truck	0	0	0	0	0	0	0	0	1	0	1
	TOTAL	7	28	149	171	222	157	144	145	245	132	

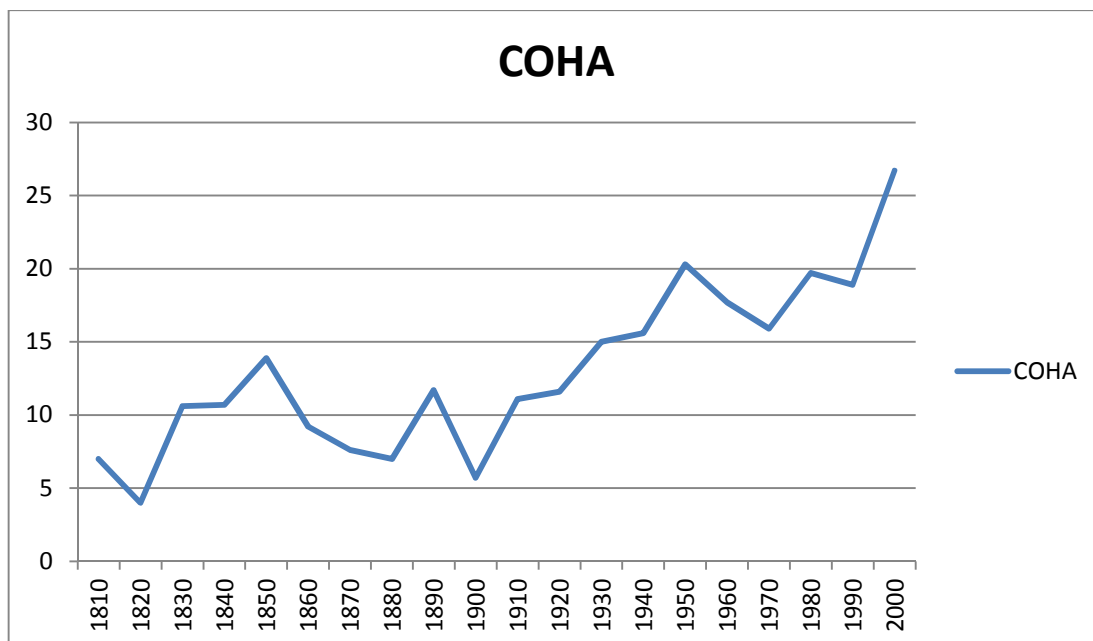
Table 5 – Saxon Genitive Occurrence in Absolute Numbers in COHA 1810 – 1900, in Descending Order, Unsuitable Tokens Manually Excluded

Table 5 displays absolute numbers of Saxon genitives in COHA in individual decades from 1810 to 1900. It also provides totals for the Saxon genitives of each means of transport throughout the periods as well as for the occurrence of all Saxon genitives in each period. Since in the periods shown in Table 5 many of the means of transport were not invented yet, I include in the table only those means of transport which have at least one token of Saxon genitive in at least one of the periods.

Table 6 below provides the absolute numbers for Saxon genitives in COHA in the decades from 1910 to 2000. In this table there are results for all the means of transport, even if the total occurrence of Saxon genitive with the one means of transport was zero because by the last decade of 2000, every one of the means of transport was known and therefore there was the possibility to use it with Saxon genitive.

	Means of Transport	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	TOTAL
1.	ship	178	201	264	262	304	242	167	274	257	352	2501
2.	car	9	6	9	15	32	57	62	52	103	163	508
3.	plane	0	19	28	38	55	51	49	53	28	46	367
4.	boat	42	43	29	17	34	18	26	28	43	54	334
5.	truck	1	1	2	6	14	14	22	14	38	51	163
6.	train	5	9	5	10	14	9	13	5	14	22	106
7.	submarine	10	3	13	7	1	4	2	19	2	5	66
8.	airplane	0	11	4	7	9	2	6	3	7	10	59
9.	van	0	1	0	1	1	0	1	11	12	19	46
10.	yacht	9	4	2	1	9	11	3	4	0	2	45
11.	helicopter	0	0	0	2	1	6	7	6	6	9	37
12.	sub	0	0	0	3	5	2	2	8	1	10	31
13.	bus	0	0	0	0	1	0	11	3	6	9	30
14.	bike	0	0	0	0	0	0	5	1	5	15	26
15.	tanker	0	1	1	3	5	8	2	4	1	0	25
16.	taxi	0	0	2	1	0	0	1	3	4	4	15
17.	bicycle	0	1	1	0	0	0	0	1	1	4	8
18.	subway	0	0	1	1	0	2	0	1	0	0	5
19.-												
20.	aeroplane	2	0	1	0	0	0	0	0	0	0	3
	lorry	0	0	0	0	1	0	2	0	0	0	3
21.	tube	0	1	0	1	0	0	0	0	0	0	2
22.-												
24.	cycle	0	0	0	0	0	0	0	1	0	0	1
	tram	0	0	0	0	0	0	0	1	0	0	1
	underground	0	0	0	0	0	0	0	0	1	0	1
25.-												
26.	moped	0	0	0	0	0	0	0	0	0	0	0
	motorbike	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	256	301	362	375	486	426	381	492	529	775	

Table 6 – Saxon Genitive Occurrence in Absolute Numbers in COHA 1910 – 2000, in Descending Order, Unsuitable Tokens Manually Excluded



Graph 2 – COHA Historical Development of the Saxon Genitive Relative Frequencies in Historical Order

Graph 2 shows the relative frequencies per million words of Saxon genitives in each decade, thus providing a linear representation of the usage of Saxon genitive with means of transport from 1810s to 2000s.

6.3 Saxon Genitive and the *Of*-Construction

As the third part of my research I focus on comparison of Saxon genitive and the *of*-construction in American English using representative features from the categories of factors influencing the genitive choice described in Chapter 3. From morphological and syntactic factors I examine end-weight, in semantic factors I focus on the semantic category of the possessum, more accurately I consider in which of the categories on the animacy scale (Figure 1, p.20) the possessum belongs to; and from pragmatic factors I examine nested genitives.

6.3.1 Sample

Because there is immense amount of data in the corpora, I work only with sample examples of each means of transport. With results of less than 100 tokens I include each example, when there are more than 100 tokens for the means of transport, I make random search for 100 examples. I take Saxon genitive as the assigner of the number of examples, therefore, even if there are more examples of *of*-constructions, I

select only corresponding number of examples to ensure that each means of transport is represented in the same proportion⁹.

With Saxon genitive, I use the general query which is in Figure 2 in order to have all the tokens displayed at once. Only then it is possible to use the option of random search in the corpora (Figure 7). After acquiring the random sample, I manually select the first 100 examples which fulfill the requirements stated in Chapter 5.4 Searching Corpora. These 100 examples are then used to examine the factors. If there are less than 100 examples according to Table 3, I use them all without making random search.

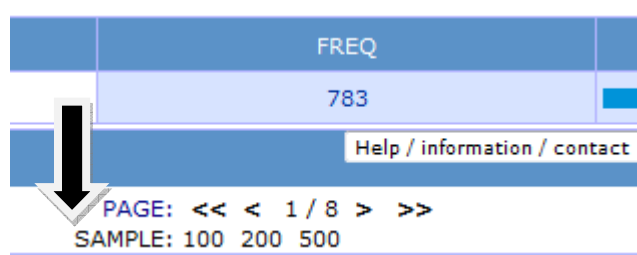


Figure 7 – Random Sample

To display all the tokens together with the *of*-construction, I use the function of collocates in my search query (Figure 8). The span between *of* and the means of transport is set to 5, which refers to the maximum number of words between them, allowing the corpus to include determiners and premodifiers. After receiving the results I again use the option for random sample and select the corresponding number or the first 100 suitable examples of each means of transport.

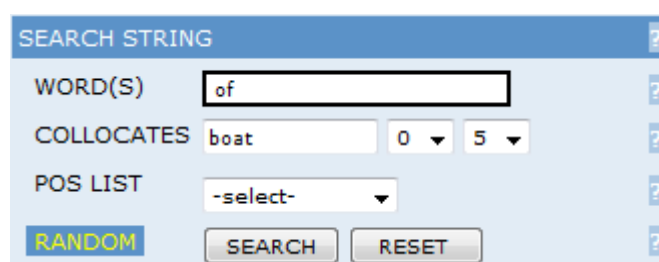


Figure 8 – Search query for the *of*-construction

⁹ Only in the case of *sub* there were fewer examples of *of*-construction than Saxon genitives, thus, I reduced the number of examples of Saxon genitives to match the number of *of*-constructions.

I limit the examples only to those which can be transformed into corresponding Saxon genitive phrases with the means of transport as the genitive. Therefore, I exclude examples where the means of transport is not the head of the possessor (55), when it is postmodified (56), or when the words in between do not belong to one genitive phrase (57).

(55) *[NP2 an evocation] of [NP1 the generic boat form]*
(COCA: 1997 MAG ArtAmerica)

(56) *[NP2 the sound] of [NP1 a boat puttering up the river]*
(COCA: 1998 FIC SouthernRev)

(57) *the side of the wing. Another boat* (COCA: 2009 SPOK Fox_Susteren)

Since I examine American English in COCA, I exclude words which are not American but British (aeroplane, lorry, tube, underground), words with no results in Saxon genitive (moped, motorbike) and words with minimal number of results (cycle).

6.3.2 Examined Factors

With each set of examples I proceed in the following way:

(1) I count the number of orthographic characters¹⁰ of both the possessor (NP1) and the possessum (NP2). Then I count the arithmetic mean length of NP1 and NP2 of all the examples for each means of transport in order to receive comparable data.

When counting the possessum in the *of*-constructions I, following the methodology of Ehret et al. (2014) and (Wolk et al. 2013), exclude the determiner, which is not used in the equivalent with the Saxon genitive (58). Their reason to exclude the determiner is to ensure that the length of the NP2s is comparable with both genitive forms.

(58) (a) *attached to [NP2 the keel] of [NP1 a boat]*

¹⁰ According to Wolk et al. (2013) it is a reliable method and takes into account the length of possessor and possessum when they consist of only one word, as is more thoroughly described in Chapter 3.2.

(b) *attached to* [_{NP1} *a boat*]'s [_{NP2} *keel*]

(c) **attached to* [_{NP1} *a boat*]'s [_{NP2} *the keel*]

I hypothesize that the sample should follow the principle of end-weight (Biber et al. 1999, 304–305; Quirk et al. 1985, 1281–1282), that is, with Saxon genitives, the possessors (NP1) should be shorter than the possessums (NP2); and with *of*-constructions, the possessors (NP1) should be longer than the possessums (NP2).

(2) I count the number of examples where the possessum is human, animal, collective, temporal, locative, or common inanimate noun, thus examining which of these types of nouns appear in the position of a possessum with means of transport most often and how common it is for nouns higher on the animacy scale (Figure 1, p.20) to appear as a possessum. According to Rosenbach (2008), who states that, especially with Saxon genitive, the possessors tend to be higher on the animacy scale (Figure 1, p.20), my hypothesis is that possessums should be of the same or lower animacy category.

(3) The third category which I consider is nested genitives in the sample. I divide the cases into three categories with respect to the forms of the genitives participating in creating the nested genitives. More specifically, I note whether the nested genitive is formed by two *of*-constructions, two Saxon genitives or a combination of the two forms. The combination of the two genitives should be preferred according to Hinrichs and Szmrecsanyi (2007, 456), and I hypothesize that it should be prevalent also with the sample of means of transport.

6.3.3 Acquired Data

Table 7 provides the values of end-weight for Saxon genitives, Table 8 shows the values for *of*-constructions. Because the number of examples with each means of transport was not the same, the results are given by its arithmetic mean to make further comparisons possible. The end-weight is counted in orthographic characters.

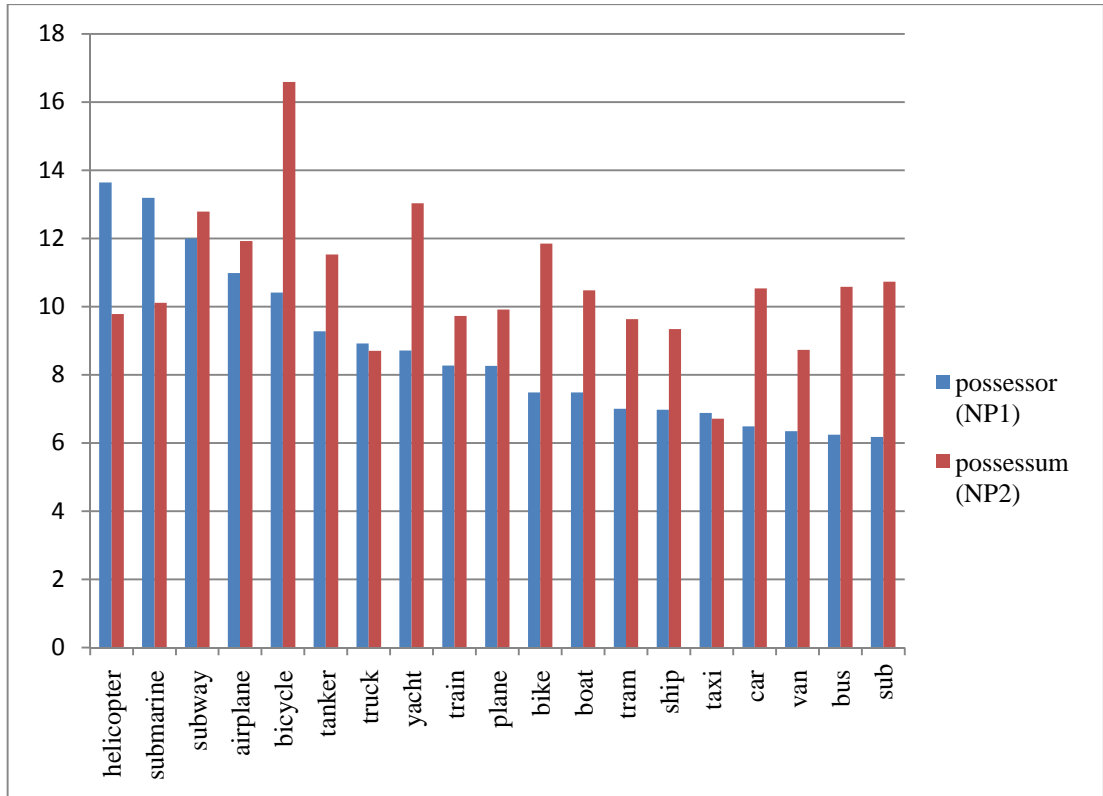
means of transport	mean end-weight of the possessor (NP1)	mean end-weight of the possessum (NP2)
helicopter	13.64	9.78
submarine	13.19	10.11
subway	12	12.78
airplane	10.98	11.92
bicycle	10.41	16.59
tanker	9.27	11.53
truck	8.92	8.7
yacht	8.71	13.03
train	8.27	9.72
plane	8.26	9.91
bike	7.48	11.85
boat	7.48	10.47
tram	7	9.63
ship	6.97	9.34
taxi	6.88	6.71
car	6.48	10.53
van	6.34	8.73
bus	6.24	10.58
sub	6.17	10.73
TOTAL MEAN	8.67	10.67

Table 7 – Mean End-Weight of Possessors and Possessums in Saxon Genitive, Counted in Orthographic Characters

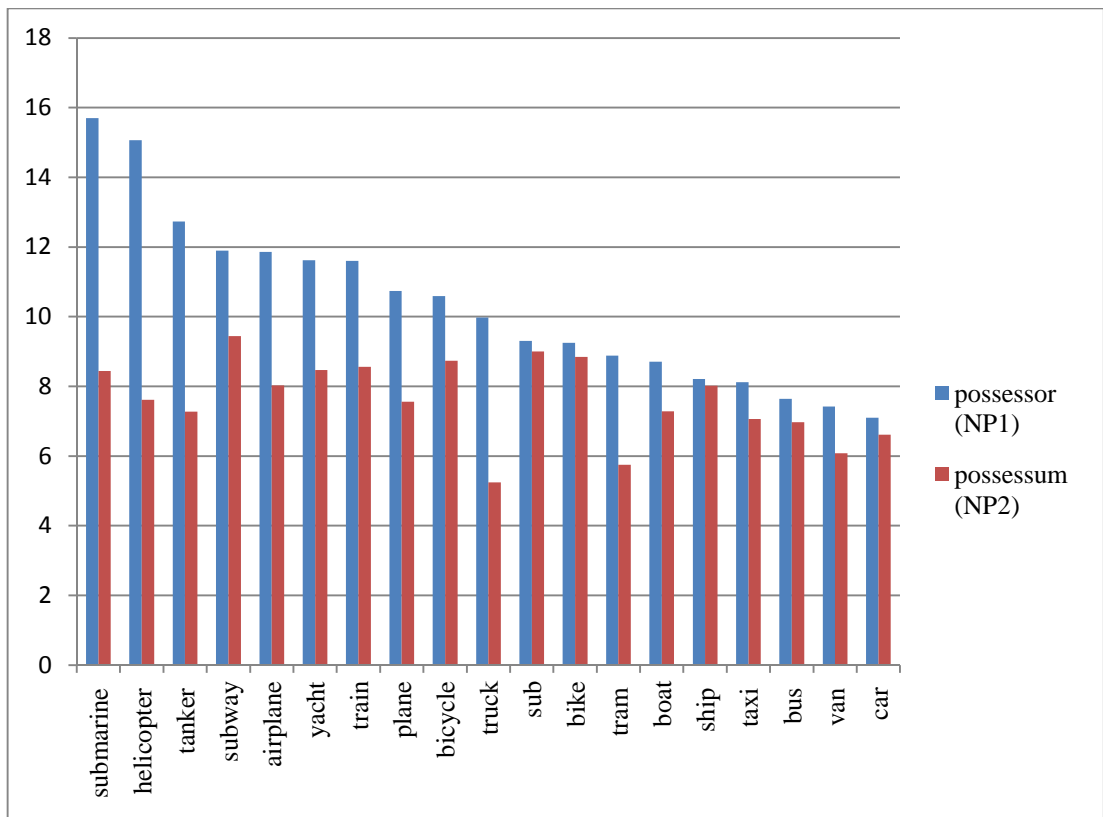
means of transport	mean end-weight of the possessor (NP1)	mean end-weight of the possessum (NP2)
submarine	15.7	8.44
helicopter	15.06	7.61
tanker	12.73	7.27
subway	11.89	9.44
airplane	11.86	8.03
yacht	11.62	8.47
train	11.6	8.56
plane	10.74	7.56
bicycle	10.59	8.73
truck	9.97	5.24
sub	9.3	9
bike	9.25	8.84
tram	8.88	5.75
boat	8.71	7.28
ship	8.21	8.02
taxi	8.12	7.06
bus	7.64	6.97
van	7.42	6.08
car	7.1	6.61
TOTAL MEAN	10.34	7.63

Table 8 – Mean End-Weight of Possessors and Possessums in *Of*-Constructions, Counted in Orthographic Characters

Visualization of the end-weight data is given in Graph 3 for Saxon genitives and in Graph 4 for *of*-constructions. The data are sorted by the length of the possessor (NP1) in descending order.



Graph 3 – End-Weight of Saxon Genitives in Descending Order by NP1



Graph 4 – End-Weight of *Of*-Constructions in Descending Order by NP1

The results for the category of animacy are in Table 9 for both Saxon genitive and the *of*-construction. The table provides overall data from the whole sample of each type of genitive given in percentages. In the category of common inanimate noun, part-whole relation is included, as it appeared frequently in the sample. Other nouns in this category did not show any common semantic relations, therefore are not given in separate categories.

animacy category	Saxon genitive	of-construction
human	5.45%	5.30%
animal	0.00%	0.00%
collective	1.84%	0.59%
temporal	0.25%	0.00%
locative	0.00%	0.00%
common inanimate	92.46%	93.88%
– part-whole relation	61.27%	63.29%

Table 9 – Percentage of Animacy Categories of Possessums in the Sample of Saxon Genitives and *Of*-Constructions

	Saxon genitive (1193 examples)	of-construction (1193 examples)
total incidence of nested genitives	115 (9.64%)	62 (5.2%)
nested Saxon genitives	0	/
nested of- genitives	/	21
alternation of Saxon and of- genitive	115	41

Table 10 – Occurrence of Nested Genitives and Their Types with Saxon Genitive and the *Of*-Construction in Absolute Numbers

Table 10 shows the occurrence of nested genitives in the sample. Due to the low frequency, the number and types of nested genitives are given in absolute numbers. For better orientation on how much of the sample is comprised of nested

genitives, the percentage is given in parentheses for the total incidence of nested genitives in the sample.

7 Discussion

7.1 British and American English

The results of relative frequencies from BNC and COCA in Graph 1 (p. 40) show that, generally, American English speakers use Saxon genitive with means of transport more often than British English speakers, which supports my hypothesis. The few exceptions involve words which are typically British, such as *lorry*, *aeroplane* or *underground*. Other cases where British English uses Saxon genitives more than American English are with the words *motorbike*, *cycle* and *yacht*. *Motorbike* and *cycle* both show very low frequencies of uses with Saxon genitives. *Yacht*, on the other hand, is the only example of a means of transport which is extensively more frequent in British English with Saxon genitive than in American English.

The most used means of transport with Saxon genitives are *ship* and *car* in both languages, which corresponds with findings from the literature (Rosenbach 2002, Hinrichs and Szmrecsanyi 2007). The words *moped* and *tube* had zero number of tokens in both British and American English.

7.2 Historical Development in American English

Graph 2 (p. 43) provides overall results of the usage of Saxon genitive in each decade chronologically from 1810 to 2000. It shows that, even though the development is not completely linear, there is a rising tendency over the years to use Saxon genitive more often, which affirms my hypothesis.

Table 5 (p. 41) and Table 6 (p. 42) provide an insight into the representation of each means of transport in the individual decades. The frequencies from the 19th century, which are in Table 5 (p. 41), show that the highest usage of Saxon genitive is with the words *boat* and *ship*, the only other words with at least one incidence of Saxon genitive are *aeroplane*, *car*, *truck*, *train*, and *yacht*. Out of these five, only *yacht* is used with Saxon genitive earlier than the 1880s. Table 6 (p. 42), which provides the results from the 20th century, demonstrates wider variety of Saxon genitives with different means of transport. *Ship*, same as in the 19th century, has the largest number of occurrence with Saxon genitive, the second is *car*, then *plane*, *boat*, *truck*, and *train*. Other means of transport have incidence lower than 100, the lowest frequency is with British nouns (*aeroplane*, *lorry*, *tube*, and *underground*), nouns *cycle*, *tram*

and *subway*, the means of transport *motorbike* and *moped* have zero occurrence with Saxon genitive.

7.3 Saxon Genitive and the *Of*-Construction

7.3.1 *End-Weight*

With the Saxon genitive construction, NP2 is the element at the end of the genitive structure and therefore, by the rules of end-weight, it should be longer than NP1 (Biber et al. 1999, 304–305; Quirk et al. 1985, 1281–1282). For example, in (59), the possessor NP *the plane* has 8 orthographic characters and the possessum NP *fabric-covered rudder* has 20 orthographic characters, which supports the end-weight principle.

(59) [_{NP1} *the plane*]'s [_{NP2} *fabric-covered rudder*] (COCA: 2004 NEWS Atlanta)

Graph 3 (p. 49) displays the mean end-weights of NP1s and NP2s of each means of transport. Most of the results correspond with the end-weight principle, which means, that NP2 is longer than NP1. The only exceptions out of the 19 means of transport are *helicopter*, *submarine*, *truck*, and *taxi*. With *taxi* and *truck* the difference between the lengths of the NPs is minimal, only in decimals, but *helicopter* and *submarine* both show greater span between the NPs lengths. *Helicopter* and *submarine* are both long words, their length is 10 in orthographic characters for *helicopter* and 9 for *submarine*, which, with the addition of other NP elements, makes their NPs longer than most of the possessums with Saxon genitives, e.g. (60).

(60) (a) [_{NP1} *the helicopter*]'s [_{NP2} *doors*] (COCA: 2012 FIC MassachRev)

(b) [_{NP1} *the submarine*]'s [_{NP2} *hatch*]

(COCA: 1996 FIC Mov:EscapeFromLA)

(c) [_{NP1} *the train*]'s [_{NP2} *doors*] (COCA: 2004 FIC Bk:LastGoodDay)

(d) [_{NP1} *the plane*]'s [_{NP2} *motor*] (COCA: 2002 FIC Storyworks)

The *of*-constructions should display the reverse tendency than Saxon genitives, that is, in *of*-constructions, the NP1 should be longer than NP2 as it is the end-of-the-phrase element (61).

(61) [*NP2 top*] of [*NP1 the airplane*] (COCA: 1997 SPOK PBS_Newshour)

Graph 4 (p. 49) provides the mean end-weight results for *of*-constructions, and we can see that each means of transport follows the end-weight principle. Although, the results for Saxon genitives do not correspond with the end-weight principle in all the cases, the majority of them, and all of the *of*-construction data, follow this principle, which supports my hypothesis.

7.3.2 Animacy Category

Table 9 (p. 50) provides the percentage of the possessums (NP2) being a representative of the animacy categories from the animacy scale (Figure 1, p. 20). The majority of the NP2s are in the category of *common inanimate* nouns (62) (92.46% in the Saxon genitive sample, 93.88% in the *of*-construction sample). The most frequent semantic sub-category of the *common inanimate* nouns is *part-whole* relation (63) with 61.27% in the Saxon genitive sample and 63.29% in the *of*-construction sample. Other examples did not show any specific semantic category within *common inanimate* nouns, therefore they are not treated separately.

(62) (a) *the car's color* (COCA: 2011 FIC Commentary)

(b) *name of the ship* (COCA: 2002 FIC FantasySciFi)

(63) (a) *the bike's front wheel* (COCA: 2011 MAG Bicycling)

(b) *bottom of the ship* (COCA: 1991 FIC BkSF:StarfireDown)

The categories higher on the scale are of little occurrence, the category of *human* (64) with 5.45% for Saxon genitive and 5.3% for the *of*-construction being the largest incidence of the five categories (*human, animal, collective, temporal, locative*). *Collective* nouns are present in 1.84% of Saxon genitives and in 0.59% of the *of*-constructions. *Temporal* nouns appear only in the Saxon genitive sample at 0.25%, in the *of*-construction sample it is not present at all. The rest of the categories (*animal* and *locative*) do not appear in either of the genitive samples.

- (64) (a) *driver of the other car* (COCA: 1994 MAG Fortune)
 (b) *the truck's owner* (COCA: 1993 FIC Mov:PerfectWorld)

Overall, the most frequent animacy category of the possessum (NP2), when the possessor (NP1) is a means of transport, is *common inanimate noun*. Categories higher on the animacy scale (Figure 1, p. 20) appear minimally, and when they do, they are often of the category *human*. These results support my hypothesis that the possessors should be of the same or lower semantic category.

7.3.3 *Nested Genitives*

The incidence of nested genitives in the sample, as is shown in Table 10 (p. 50), is 115 cases (9.64%) for Saxon genitive and 62 cases (5.2%) for the *of*-construction. With Saxon genitives, all the cases were formed by alternation of the two types of genitives (65). With the *of*-construction, 41 out of 62 cases were formed by the combination of Saxon genitive and the *of*-construction (66) (a), in 21 cases the nested genitives consisted of two nested *of*-construction (66) (b).

- (65) *the reddish glow of his airplane's cockpit instrument lights*
 (COCA: 1994 NEWS Atlanta)

- (66) (a) *the bugging of Nixon's plane* (COCA: 1994 SPOK ABC_Nightline)
 (b) *the back of the floor of the van* (COCA: 2001 FIC Mov:HannibalMamet)

The results suggest that with nested genitives, the alternation is indeed preferred, as was mentioned in the literature (Hinrichs and Szmrecsanyi 2007), though more strongly when the possessor is realized as Saxon genitive. When the possessor is realized by the *of*-construction, a combination of two *of*-phrases may also occur. Despite the fact that the nested genitives in the *of*-construction are not always formed by the alternation of the two genitives, the majority follows this pattern, which affirms my hypothesis.

8 Conclusion

The topic of this thesis was the usage of the two genitive forms in English—the inflectional Saxon genitive and the analytic *of*-construction—with inanimate nouns. The theoretical part provided an overview of phonetic, morphological, grammatical and semantic properties of Saxon genitive and properties of the *of*-construction. Because inanimate nouns commonly appear with the *of*-construction, the main part of the theory dealt with various features which can influence the choice of the genitives in favor of the Saxon genitive with inanimate nouns.

A chapter on genitive shift presented certain phenomena which are believed to be responsible for the fact that Saxon genitive appears more often with inanimate nouns in recent years.

The theoretical part was the source for practical part and the formulation of research questions and hypotheses. Three research questions were defined and tested on corpus data from three corpora by Mark Davies (2004, 2008, 2010).

The first research question examined the difference in usage of Saxon genitive with means of transport between American and British English. All of the incidences of Saxon genitive in American corpus and in British corpus were found by a search query and then the individual means of transport were compared by relative frequencies per million words in both languages. The results showed that, generally, Saxon genitives with inanimate nouns are more frequent in American English, which supports the findings from literature and my hypothesis.

The second research question dealt with historical development of the usage of Saxon genitives with inanimate nouns in American English. I searched the historical corpus for all the occurrences from the periods of 1810s to 2000s. The data, again counted by relative frequencies per million words, revealed a rising tendency in the usage of Saxon genitives with means of transport. This confirms the claims from the literature and supports my hypothesis.

The third research question was concerned with a comparison of Saxon genitives and the *of*-constructions. For the comparison, the set of means of transport was used and three factors described in the theoretical part as having an influence on the genitive choice were examined. The first factor was end-weight which was said in the literature to belong among the most decisive factors in the choice between the two genitives. I used a random sample of one hundred examples (or less, when there

were not enough data) for each means of transport with Saxon genitive and the *of*-construction and counted the end-weight of both possessors and possessums in each sentence. The findings revealed that with *of*-constructions the sample followed the end-weight principle reliably. With Saxon genitives the results were not as unanimous, though in most of the cases the end-weight principle was followed, which supported my hypothesis.

The second factor was the category of animacy, where I examined which animacy category from the animacy scale (Figure 1, p.20) appears most often as the possessum, when the possessor is inanimate, more specifically, when it is a means of transport. The data showed that most commonly the possessum is a common inanimate noun, both with Saxon genitives and the *of*-constructions the results exceeded 90%. Other categories then comprised the rest of the percentage, among them the most frequent was the category of person, then collective nouns, temporal nouns and the categories of animal and locative nouns were not present at all. This distribution confirms my hypothesis that possessums should be of the same or lower animacy category, which suggests that animacy is a factor which is taken into consideration when using each of the genitive forms.

The third category was nested genitives, where I examined whether the nested genitives are composed of alternation of Saxon genitive and an *of*-construction as literature suggests, or, whether nested genitives of the same type—two Saxon genitives or two *of*-constructions—also appear. The results revealed that the combination of the two forms is preferred, which supports my hypothesis. In the Saxon genitive sample, all of the cases were formed by the combination of the two genitive forms, in the *of*-construction sample it was in 41 cases out of 62.

The results show that the usage of genitives with means of transport follows the prescribed patterns. The three categories examined in the genitive alternation seem all to be effective elements which can influence the genitive choice, though each of the categories showed some deviations, for example, the four words (truck, taxi, submarine, helicopter) which do not follow the end-weight principle in the Saxon genitive sample; the occurrence of the category of person in the possessums; or, the incidence of two *of*-constructions in nested genitives.

For further research it might be beneficial to look at these factors in combination, and not separately, to see if it might help to enlighten the few discrepancies which occurred in the results. For example, when the category of

person appeared as a possessum, the speaker might have been influenced to disregard animacy in favor of the end-weight or the double genitive principle. Furthermore, this thesis limits its research to only three of the factors which were listed in chapter 3; it might be useful to make a similar comparative study which would examine the other factors with means of transport, or which would widen the set of inanimate words used to make the study.

Resumé

Tato bakalářská práce pojednává o dvou druzích genitivu v anglickém jazyce a jejich použití s neživotnými podstatnými jmény. Saský genitiv je inflekční forma genitivu, která se obecně používá s životnými podstatnými jmény. Analytická varianta genitivu je *of*-fráze, která se častěji používá s podstatnými jmény neživotnými. Nicméně, jasná hranice v použití dvou forem anglického genitivu neexistuje a v určitých případech jsou oba druhy relevantní volbou. Někdy také může mluvčí zvolit méně častý genitiv, např. saský genitiv s neživotným podstatným jménem, nebo naopak *of*-frázi s podstatným jménem životným. Cílem této práce je poskytnout přehled odborné literatury týkající se problematiky dvou anglických genitivů, zejména shrnout základní vlastnosti těchto forem, předložit faktory, které se podílejí na volbě mezi variantami genitivu, určit současné trendy v jejich použití a tyto získané poznatky dále aplikovat v korpusové studii.

První kapitola teoretické části se zabývá představením saského genitivu, jeho fonetickými variantami, morfologií, dále popisuje jeho gramatické dělení na genitiv ve funkci determinátoru a genitivu ve funkci modifikátoru, zahrnuje také sémantické dělení a použití. V této kapitole je také představen *of*-genitiv a jeho vlastnosti.

Druhá kapitola poskytuje přehled faktorů, které mohou ovlivnit mluvčího ve výběru té či oné formy genitivu. Mezi fonologické faktory je řazena koncová sykavka u podstatného jména nebo jeho fráze, která může činit problémy nebo nejistotu při výslovnosti v kombinaci s inflekčním *-s* saského genitivu.

Mezi morfologické a syntaktické faktory se řadí složitost jmenné fráze, která se může soudit dle počtu ortografických znaků, slabik, přízvuků, fonémů nebo celých slov. Složitější jmenné fráze mají tendenci se objevit na konci genitivní fráze, čehož se dá docílit zvolením vhodného genitivu. Různé studie používají jiné metody určování složitosti jmenné fráze, spolehlivost se však u všech pohybuje na stejné úrovni.

V sémantických faktorech je životnost, která je mnoha autory považována za nejdůležitější faktor ve volbě genitivu v angličtině (např. Rosenbach 2008; Wolk et al. 2013; Ehret et al. 2014). Mezi životná podstatná jména v angličtině se řadí převážně lidé a domácí mazlíčci. Ostatní podstatná jména se považují za neživotná, nicméně existují určité skupiny podstatných jmen, které mohou být v některých případech brána jako životná. Řadí se mezi ně kolektivní, časová a místní podstatná

jména. Saský genitiv je také typický s některými vybranými podstatnými jmény nebo v ustálených kolokacích. Sémantické role, např. vlastnictví, rodinné vztahy nebo míra, také ovlivňují, ke kterému genitivu se mluvčí přikloní.

Poslední skupinou faktorů jsou pragmatické faktory, řadí se k nim téma a réma, kdy známá informace – téma má tendenci objevit se na začátku věty, zatím co réma – nová informace se objevuje na konci. Použitím variant genitivu se této pozice dá docílit, i když by obecně byla upřednostněna forma druhá. Tematické genitivy jsou dalším pragmatickým faktorem, který uvádí, že v odborném textu mající za téma podstatné jméno, které se běžně objevuje v *of*-genitivu, je běžné toto slovo více používat v saském genitivu, který má ekonomičtější formu. Také, pokud mluvčí dříve slyšel použít podstatné jméno nebo jmennou frázi s jednou formou genitivu, je pravděpodobně, že on sám tuto formu později zvolí. Posledním pragmatickým faktorem jsou sdružené genitivy. V tomto případě, když se ve větě objeví nutnost použití více než jednoho genitivu, je pravděpodobnější, že mluvčí zvolí jeden saský genitiv a jeden *of*-genitiv, než že použije dvakrát tu samou formu.

Třetí kapitola pojednává o změně v užívání genitivu v průběhu historie, kdy je zaznamenáno, že v posledních letech dochází k nárůstu v užívání saského genitivu. Také je zde řečeno, že širší kontext může ovlivnit vnímání mluvčího o tom, zda jsou podstatná jména v konkrétním případě životná, i když běžně jsou považována za neživotná. Zmíněny jsou i rozdíly mezi americkou a britskou angličtinou. V americké angličtině je saský genitiv používán častěji než v angličtině britské.

Metodologická kapitola navazuje na informace z teoretické části a využívá je pro výběr konkrétních neživotných podstatných jmen pro praktickou studii – dopravních prostředků. Jsou zde definovány tři výzkumné otázky a hypotézy, krátce představeny korpusy, které jsou použity pro vyhledávání dat – britský národní korpus BNC, korpus současné americké angličtiny COCA a korpus historické americké angličtiny COHA. Dále je popsána metodologie hledání v korpusu, stanovení hledacích výrazů a třídění dat.

Kapitola korpusová data pak přináší výsledky hledání. První výzkumnou otázkou je četnost saského genitivu s dopravními prostředky v americké a britské angličtině, má hypotéza na podkladě informací z odborné literatury předpokládá, že vyšší výskyt bude v americké angličtině. Četnost saského genitivu s dopravními prostředky je zobrazena v tabulkách v absolutních číslech řazených sestupně, zvlášť pro americkou a britskou angličtinu. Pro objektivnější výsledky jsem spočítala

relativní frekvence na milion slov, které jsou zpřehledněny v grafu, kde je možné porovnat četnosti výskytu u obou variant angličtiny. Z grafu lze vyčíst, že v americké angličtině je saský genitiv obecně více používáný, než v angličtině britské. Výjimku tvoří výrazy, které jsou typicky britské, např. *lorry*, *aeroplane*, *underground*, a slova *motorbike*, *cycle* a *yacht*. *Motorbike* a *cycle* mají celkově nízký počet výskytu se saským genitivem jak v americkém, tak v britském korpusu. *Yacht* je tedy jediný výraz používaný v obou variantách angličtiny, který vykazuje vyšší četnost se saským genitivem v britské angličtině. Celková data pak potvrzují mou hypotézu, že užití saského genitivu s dopravními prostředky je častější v americké angličtině.

Druhá výzkumná otázka má za úkol podívat se na saský genitiv v historickém korpusu, v kterém jsou dostupná data z období od roku 1810 do 1. desetiletí 21. století. Má hypotéza stanovuje, že výskyt v průběhu jednotlivých dekád by měl stoupat. Výsledky pro jednotlivá období u konkrétních dopravních prostředků jsou zobrazena ve dvou tabulkách, opět řazena sestupně podle absolutních čísel. Relativní frekvence všech dopravních prostředků za jednotlivé dekády jsou zpracovány do lineárního grafu, kde lze vidět užití saského genitivu v průběhu stanovených let. Graf ukazuje, že výskyt saského genitivu s dopravními prostředky během let stoupá, což potvrzuje stanovenou hypotézu, ačkoli růst není kompletně lineární.

Třetí výzkumná otázka se zabývá zkoumáním tří faktorů z teoretické části – složitostí jmenné fráze, životností přivlastňované jmenné fráze a sdruženými genitivy. Složitost jmenné fráze ovlivňuje výběr typu genitivu tak, že je upřednostněna varianta, kdy je složitější jmenná fráze z genitivu dána na konec. Složitost jmenné fráze je počítána podle ortografických znaků, průměrné velikosti jmenných frází u jednotlivých dopravních prostředků jsou zobrazeny v tabulkách zvlášť pro saský genitiv a *of*-genitiv, porovnání je poskytnuto v grafu. Z výsledků vyplývá, že složitost jmenné fráze odpovídá původnímu tvrzení o jejím umístění, kdy u *of*-genitivů byly průměry ortografických znaků větší u pozičně druhé fráze, u saského genitivu tak bylo ve většině případů, vychylovaly se pouze dopravní prostředky *helicopter* a *submarine*, kde samotná délka těchto slov je oproti ostatním dopravním prostředkům vyšší, a u *truck* a *ship*, kde však rozdíl mezi složitostí jmenných frází byl pouze v desetinných číslech.

U faktoru životnosti jsem zkoumala procentuální výskyt šesti kategorií objevujících se na škále životnosti (člověk, zvíře, kolektivní, časové, místní a obecné neživotné podstatné jméno) u přivlastňované jmenné fráze. Výsledky ukazují, že ve

více než 90% je kategorie životnosti této jmenné fráze obecné neživotné podstatné jméno, dále se objevuje kategorie člověk, kolektivní a nejméně často časové podstatné jméno. Kategorie zvíře a místní podstatné jméno se u přivlastňované jmenné fráze neobjevují vůbec u žádného ze dvou typů genitivu.

U sdružených genitivů je zjišťováno, které kombinace genitivů se na jejich tvorbě podílí. Literatura uvádí, že pokud se sdružený genitiv vyskytne, mluvčí dá přednost využití obou variant genitivu před použitím dvakrát toho samého typu v jedné větě. Z výsledků lze vidět, že u saského genitivu se kombinace obou variant objevuje ve všech případech, u *of*-genitivu pak v 41 případech z 62, zbytek je tvořen dvěma *of*-genitivy. Toto zjištění odpovídá tvrzením z literatury, ačkoli u *of*-genitivu není pravidlo střídání forem genitivu stoprocentní.

Kapitola diskuze přináší interpretaci získaných dat, která byla nastíněna u výsledků jednotlivých výzkumných otázek, kapitola závěr přináší shrnutí celé bakalářské práce a zhodnocení zodpovězení výzkumných otázek a splnění cíle práce, kdy všechny výzkumné otázky byly zodpovězeny a stanovený cíl práce splněn.

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Abbreviations List

BYU – Brigham Young University

BNC – British National Corpus

COCA – Corpus of Contemporary American English

COHA – Corpus of Historical English

N – noun

NP – noun phrase

NP1 – noun phrase 1 (the possessor)

NP2 – noun phrase 2 (the possessum)

pmw – per million words

POS – part of speech