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Katedra anglistiky a amerikanistiky

**Postnominal Double Genitive in English**  
**(Diplomová práce)**

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Vedoucí: Doc. PhDr. Ludmila Veselovská, MA, Dr.

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Studijní obor: Anglická filologie – Filmová věda

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Počet stran: 101

Počet znaků: 120 817

Olomouc 2013

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

V Olomouci dne 18. srpna 2013

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## **Poděkování**

Děkuji vedoucí své diplomové práce Doc. PhDr. Ludmile Veselovské, MA, Dr. za inspirativní rady, pomoc a podporu při psaní této práce.

## **Abstract**

This thesis focuses on the double genitive in English. This postnominal genitive construction is special in comparison with prenominal genitive or *of*-phrase because it contains genitive markers of both of these phrases. Traditional grammar manuals mention this phenomenon; however, they lack the explanatory power. Generative literature provides several versions of syntactic analysis of double genitive but the interpretation is not consistently described.

The aim of this thesis is to provide a complex description of the format of the double genitive, determine its syntactic structure in generative framework in terms of the X-bar theory and examine the interpretation of double genitive as regards to semantic roles.

## **Key words**

double genitive, genitive, possessive, *of*-phrase, noun phrase, X-bar theory, syntactic structure, generative, semantic roles

## **Anotace**

Tématem této diplomové práce je "double genitive" konstrukce v angličtině. Tato postnominální genitivní fráze je vzhledem k genitivu v premodifikaci jmenné fráze i *of*-fráze v postmodifikaci jmenné fráze výjimečná tím, že obsahuje společně oba prvky značící genitivní frází, které se v angličtině vyskytují. Tradiční gramatické manuály se "double genitivu" věnují, neposkytují však explanaci tohoto jevu. Generativní literatura nabízí několik variant syntaktické analýzy, interpretace však není konzistentně popsána.

Cílem této práce je a) komplexní popis této konstrukce, b) v rámci generativního přístupu na základě X-bar teorie určit nevhodnější syntaktickou strukturu fráze "double genitive" a c) na základě teorie sémantických rolí poskytnout interpretaci této fráze.

## **Klíčová slova**

double genitive, genitiv, posesiv, *of*-fráze, jmenná fráze, X-bar teorie, syntaktická struktura, generativní, sémantické role

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## **Abbreviations and Symbols Used in the Thesis**

A, AP	Adjective, Adjective phrase
Adj	Adjunct
anim	animate
BNC	British National Corpus
C, CP	Complementizer, Complementizer phrase
c.f.	compare
Comp	Complement
D, DP	Determiner, Determiner phrase
def	definite
I, IP	Inflection, Inflectional phrase
N, NP	Noun, Noun phrase
P, PP	Preposition, Preposition phrase
S	sentence
Spec	Specifier
T, TP	Tense, tense phrase
V, VP	Verb, Verb phrase
i.e.	that is/that means
e.g.	for example
≈	approximately equal
*	unacceptable structure

## 1. Introduction

This thesis deals with the English postnominal genitive construction, traditionally named double genitive. An example of this construction is in (1). In particular, this paper will focus on the format, syntactic structure, the possible semantic roles of double genitive and the differences between double genitive and other genitive constructions in English.

- (1) a. *a friend of Jim's*  
b. *a friend of mine*<sup>1</sup>

In general terms, a noun phrase in English is well described in traditional grammar books such as Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002). A noun as the head of the phrase is preceded by pre-modifying constituents and followed by post-modifying constituents. Pre-modification contains the field of determination which is further divided into three categories: pre-determiners, central determiners and post-determiners. The genitive/possessive in English is expressed in two ways, one being prenominal possessive (2) and the other being genitive *of*-phrase (3).

- (2) *Jim's friend/ my friend*  
(3) *a house of my father*

There is a correspondence in meaning expressed by these two constructions, but they mostly have different usage. In prenominal possessive the relation of the two nouns is expressed by the genitive clitic '*'s*', in the genitive *of*-phrase by the preposition *of*. In the genitive *of*-phrase, the preposition *of* is always followed by a noun phrase or its substitutes (pronouns).

The genitive constituent (*Jim's* in (2)) in prenominal possessive is categorised as belonging to the category of central determiners together with articles, demonstrative pronouns etc. All central determiners, apart from genitives, occur exclusively in a position preceding the head noun and are in

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<sup>1</sup> All examples are mine if not marked otherwise.

complementary distribution. The genitive constituents are special with respect to other central pre-modifiers because it is possible for them to appear in *of*-phrase post-modifying the head noun. For possessive pronouns as the proforms of NPs, the complementarity is usually available, as well. In postnominal positions, pronouns appear in independent forms, opposed to dependent forms in prenominal positions, as demonstrated in (1).

The main topic of this thesis are noun phrases containing both *of*-phrase and genitive case of NP or a possessive pronoun in post-modification of the head noun as in (1) above. Double genitives<sup>2</sup> are considered special constructions because they contain two possessive markers (genitive 's clitic<sup>3</sup> attached to NP or possessive pronoun<sup>4</sup> and genitive *of*-phrase). Comparing the constructions in (1) - (3) the correspondence in meaning seems to extend to double genitives, as well, so that there are three NP construction with apparently close meaning. They are repeated for clarity below:

- (4) *a friend of Jim's/ a friend of mine*
- (5) *Jim's friend/ my friend*
- (6) *a house of my father*

The double genitive is mentioned in all the three grammar books noted above. However, the grammars are descriptive works so the syntactic complexities of the construction remain untouched there. The relation between prenominal possessive and genitive *of*-phrase with respect to double genitive is not consistently described in the above mentioned grammars. One goal of this paper is therefore to determine the syntactic structure of the double genitive.

I will start from a general phrase structure and VP and NP parallelism. Consequent analysis of double genitive should determine the position of double genitive in the syntactic structure, possible combinations and order of an *of*-phrase and double genitive or two double genitives in a NP, and the impact on

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<sup>2</sup> Other terms such as post-genitive (Quirk 1985) or oblique genitive (Huddleston and Pullum 2002) are used to refer to this construction, as well.

<sup>3</sup> Clitic opposed to bound suffix is attached at phrase level not at word level.

<sup>4</sup> Constructions with independent possessive pronouns following preposition *of* (*a friend of mine*) are sometimes not considered double genitive construction, they are however, included in this paper.

the grammaticality of the whole phrase. As a result it should be clear why e.g. phrase (7) is acceptable while (8) and (9) are ungrammatical.

- (7) *a picture of Jim of Lucy's*
- (8) *\*a picture of Jim's of Lucy*
- (9) *\*a picture of Jim's of Lucy's*

A second aspect of this paper, is the research on the interpretation of double genitives, from the perspective of their interpretation, i.e. of the variety of semantic roles they can carry. Assuming that prenominal possessive, genitive *of*-phrase and double genitive are able to carry some semantic roles, the analysis will attempt to derive interpretation hierarchy of semantic roles for double genitives.

To conclude, the objective of this thesis are: to give an overview of properties of genitive constructions in English, to provide possible analysis of syntactic structure of double genitive in comparison with prenominal possessive and *of*-phrase construction in English, and to provide interpretation of double genitives from the point of view of their semantic roles. The focus is on analysis from a syntactic point of view anchored in the generative framework.

The thesis is organized as follows: An opening contains short introduction to the terminology used in this thesis. The following section provides overview of what the grammars of Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002) say about prenominal possessive, genitive *of*-phrase and double genitive. The description of the double genitive in traditional grammars provides overview of the format of the structure. On this basis I will elaborate on the syntactic structure, analyzing it in terms of X-bar theory and interpretation of double genitives in terms of semantic roles they can carry. The final part of this thesis will consist of a corpus data collection of double genitive constructions.

Theoretical concepts will be tested and demonstrated on examples. Most of the examples used in this thesis are mine or taken from British National Corpus (BNC). Examples taken from other authors are marked.

## 2. Terminology

In this section I will define the terminology used. In literature, some terms are used in a very general or slightly different sense so by defining them I attempt clarity of argument. E.g. in English the terms *possessive* and *genitive* are sometimes used interchangeably, here I will clarify their use in this work.

With respect to languages with a developed system of case inflection, the word *genitive* or genitive case is commonly used to refer to a grammatical case of nouns (or to the single word inflected in the genitive case) expressing a range of relations including those of possession, measurement, source etc. between two nouns.

For languages which do not have a developed system of case inflection, like English, the term *possessive* is used to refer to a construction of words (or to the possessor word in this construction) expressing the relation of possession, measurement, source etc. Thus both *my friend* and *Jim's friend* are referred to as possessives. *My* in the first phrase is termed possessive pronoun, *Jim's* in the latter phrase is called *prenominal possessive*.

As for *genitive* in English, the term is traditionally used more narrowly to refer to a prenominal possessive of nouns (so called *Saxon genitive*), e.g. *Jim's book*, that means to the word or phrase containing the genitive clitic 's. The term is also used in reference to the *double genitive* construction. Other forms bearing the abstract genitive case are usually called possessive. In this paper I adopt Barker's (1998) terminology (slightly adjusted):

- (10) a. Prenominal possessive/prenominal genitive: *[John's] friend is nice./ [His] friend is nice.*
- b. Bare genitive: *I'm going to [John's].*
- c. Genitive of-phrase: *I met a friend [of<sub>GEN</sub> John].*
- d. Double genitive: *I met [a friend of John's]. /I met a friend [of<sub>GEN</sub> his].*

(Barker 1998, 4)

I use the term *genitive phrase* in reference to all the (10) a.-d. constructions above regardless of the position of the possessor<sup>5</sup> in the overall NP. All the (10) a.-d. constructions express a relation which is loosely referred to as *possessive*, I use this term in reference to constructions expressing alienable or inalienable possession. With respect to possessive pronouns, I use the established terminology: *dependent* in reference to prenominal and *independent* to postnominal (or any other) occurrence.

The genitive phrases in (10) a.-d. are sometimes referred to as *determiner genitives*, because they are in complementary distribution with determiners in prenominal position and it is possible to substitute them with possessive pronouns. There are also different uses of genitive constructions called *attributive*<sup>6</sup> (including measure genitive; *an old people's home*, *two days' holiday*). These genitives are modifiers not determiners: they are not in complementary distribution and cannot be substituted by possessive pronouns, they are excluded from my analysis.

Regarding the prenominal possessive, genitive *of*-phrase and double genitive construction, for further reference I will use the following abbreviations: N1 for the head noun, (*friend* in phrases (10)a., c., d.) and N2 for the possessor (*John's* in the same phrases).<sup>7</sup>

Other terms will be defined when needed throughout the paper.

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<sup>5</sup> *John's* is the possessor in both (10)a. and d.

<sup>6</sup> In Quirk et al. the class of attributive genitive is split into: descriptive genitive, genitive of attribute and genitive of measure. In section on grammatical status of genitive, modifying grammatical status refers to attributive genitives.

<sup>7</sup> N1 and N2 abbreviations are adopted from Alexiadou (2007).

### **3. Theoretical Preliminaries**

I selected three grammar books, Quirk et al. (1985), Biber et al. (1999) and Huddleston and Pullum (2002) to compare what the largest English grammar manuals say about the prenominal possessive phrase, genitive *of*-phrase and double genitive phrase. They are all descriptive works, their goal being to describe the forms and functions of a language accurately in their complexity, not to explain the possible reasons and motivation for the way in which language operates or to produce a theory of language. However, at least one of my goals, the description of double genitive compared with prenominal possessive and *of*-phrase will be based on these works.

All the three grammar books mentioned above categorise the prenominal possessive and double genitive as constructions expressing genitive case. The term case could be interpreted in two distinct ways which might create confusion therefore the concept of case is discussed before proceeding to the description of phrases which are in focus of this thesis.

#### **3.1. Concept of Case**

The double genitive is generally considered to be one of the constructions belonging to the category of genitive case. In this section my objective is to explore the category of case in English, what is the function of genitive case, what is the motivation of the traditional term "double genitive" and finally address the issue of abstract Case.

By case, a morphological (grammatical) case is traditionally understood. In e.g. Czech, which is a synthetic language with rich inflectional morphology, there are seven morphologically realized cases. A prototypical noun has several different inflectional suffixes attached to the stem, as exemplified in Table 1 in (11). Traditionally, the term case is used to refer to these inflectional declensions of a noun.

(11)<sup>8</sup>

Case	Realization in Czech	Realization in English	Czech pronoun	English pronoun
Nominative	pán-	man	on	he
Accusative	pán-a	man	ho, jej, něho, něj	him
Dative	pán-ovi, pán-u	man	jemu, mu, němu	him
Genitive <sup>9</sup>	pán-a	man's	jeho, ho, jej, něho, něj	his
Vocative	pan-e	man	-	-
Locative	pán-ovi, pán-u	man	něm	him
Instrumental	pán-em <sup>10</sup>	man	jím, ním	him

Table 1: Inflectional suffixes corresponding with cases realization in Czech.

English is to a certain extent an analytic language and so it does not have a rich inflectional morphology. Nominative (subject), accusative (object) and genitive cases are differentiated with respect to personal pronouns and nominative (common) and genitive with respect to nouns.<sup>11</sup>

The term "case" is in the selected grammars treated slightly different by each author. Quirk et al. differentiate common and genitive case of nouns, however, the author admits that he uses the term "case" as a standard way of referring to this phenomenon and claims that there is not a real case distinction in the language nowadays. "The common case [...] is the form used when genitive is not used [...]" (Quirk et al. 1985, 318).

Biber et al. (1999) use the same terminology but recognizes genitive as inflectional case. Huddleston and Pullum (2002) use the term plain case as a form of a noun that contrasts with genitive case and they consider it to be an

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<sup>8</sup> The table give declension paradigm for masculine animate nouns in Czech.

<sup>9</sup> Although the term genitive is used in both languages it has different function, distribution and meaning in each language. English prenominal possessive corresponds to possessive adjective.

<sup>10</sup> Nominative in Czech is in some cases realized by a zero suffix. In this case the word "pán" has no suffix in nominative. However, some other word such as "město" prove that the position of the inflectional suffix for nominative exist. For example, the final vowel "o" in nominative of the word "město" is replaced by a vowel "u" in dative (dative of "město" = "městu").

<sup>11</sup> With nouns terms subjective and objective are used for nominative and accusative respectively by some modern grammarians. With pronouns terms personal subjective (for nominative), personal objective and possessive (for genitive) are used.

inflectional case (although they admit that case plays only marginal role in the marking of syntactic function).

As it is apparent, all three grammars treat "case" as a grammatical category which is in English relevant only for genitive. They do not deal with the system of cases in general. Quirk et al. (1985) notes that because the case system in present-day English is so poor the terminology (such as nominative, etc.) is not even relevant, but he sticks to it with respect to genitive to keep the tradition.

With respect to a function of the genitive case, Quirk et al. (1985) mention solely possible specific meanings of possessor with respect to the head noun. Implicitly, the relation is the function of genitive. Biber et al. (1999) claim that genitive formally (by the 's clitic) defines its relation to other NP and according to Huddleston and Pullum (2002) genitive primarily marks its dependency in the structure on a larger NP.

Genitive *of*-phrase is sometimes not labelled genitive (Huddleston and Pullum 2002), however, it is (either explicitly or implicitly) considered analytic marker of the genitive or rendering the same semantic relation as prenominal genitive. E.g. Quirk et al. considers prenominal genitive construction and *of*-phrase side by side because of the correspondence between the two, i.e. "[...] there is a similarity of function and meaning between noun in the genitive case and the same noun as head of a prepositional phrase with *of* (sometimes called 'of-genitive')" (1985, 321). This correspondence between prenominal possessive and genitive *of*-phrase is not total as illustrated in (12) contrasted with (13) below.

(12) *the front of the house*

(13) \**the house's front*

However, according to Quirk et al. (1985), if N1 can be used with both constructions, the correspondence in function and meaning follows.

One of the reasons why the term *genitive* is avoided with respect to *of*-phrases in present-day English is, that case is associated with morphological case, which is not present in the language in a systematic way. Four grammatical cases realized by means of morphological affixation which

occurred in Old English (Biber et al. 1999, 292) left traces only in prenominal genitive form of nouns (and personal objective pronouns).<sup>12</sup>

The term *genitive* is traditionally used also with double genitive construction. The motivation for the label is the co-occurrence of two genitive markers, enclitic 's and the preposition *of* (supposedly marking the genitive analytically). In spite of the fact that the idea of analytic case marking in English is generally not accepted the term double genitive is used most widely.

A possible reason for the ambiguity might be that the term case is used to refer to two different phenomena. Apart from grammatical case, generative grammar employs a concept of abstract Case.

In generative framework the term *Case* (capitalized) is used to refer to a relation of a NP to a case assigner. A noun in nominative Case in a position of a subject in a sentence is licensed by a finite verb, a pronoun in accusative case is identified with object and the case is assigned by either a finite verb or preposition. To differentiate two dissimilar concepts, terms abstract Case is used contrastively with capitalized initial letter in comparison with morphological case. It is assumed that the concept of Cases is universal to all languages. All nouns (which are heads of NPs) have certain sentence function and need to have Case assigner in order to be grammatical in a sentence.<sup>13</sup> Syntactic languages which are morphologically rich realize the system of abstract Cases morphologically and in these languages a noun has several different forms realized by inflectional declension representing cases, see (11). In other words abstract Case is made visible via morphological case.

More analytic languages do not have morphological manifestation of Cases, but the concept of abstract Cases applies as well. In English, structurally definable and more fixed positions of subject and object in a sentence along with a system of prepositions preceding objects validate this Case theory for the language. E.g. in a positive unmarked sentence, the subject prototypically precedes the predicate and canonically, a noun in this position bears

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<sup>12</sup> Prenominal genitive is considered clitic, not a suffix which is the canonical realization of case in inflectional languages. Thus it is not in fact directly associated with traditional grammatical cases.

<sup>13</sup> Case theory of generative framework concerned with distribution of NPs focuses mainly on movement, transformations and explanation of subjects of non-finite clauses. Syntactic structure of NP involving movement will be tackled in section 5.2.

nominative Case, which is licensed by the finite verb element. In comparison with Czech in which the Case is morphologically realized as a suffix and thus it is not determined by a position in a sentence (at the s-structure)<sup>14</sup>. The case assigner of the nominative, the finite verb, is the same in both languages.

With English nouns, Cases are mostly not marked morphologically, and the genitive form on NPs (and the accusative form of pronouns) are the only instances of it. Thus, abstract Case is universally applying: it is "a property which is borne by a nominal element as a result of occupying certain position." (Cook, Newson 2007, 147).

As for the abstract genitive Case in English, I will assume that this is realized in at least three forms: a) prenominal possessive consisting of a noun with the genitive clitic (*Jim's book*) or possessive pronouns (*his book*), b) genitive *of*-phrases following a noun (*a book of John*) and c) double genitive (*a book of John's*).

The case assigner in *of*-phrase is most probably the preposition *of*. The prenominal possessive deviates from the standard pattern of case assigners and moreover, it is the only one which shows some overt case morphology. Thus, it is a good reason to consider it different from the other Cases.

With respect to the origins in Old English which had overt case morphology, prenominal possessive is considered an inherent case while genitive *of*-phrase, nominative and accusative are structural cases<sup>15</sup>. The status of double genitive is ambiguous, it has both case morphology typical of inherent case and is preceded by a typical case assigning preposition *of*. This discussion is postponed to section 5.2 which is concerned with syntactic structure of double genitive.

### **3.2. Prenominal Possessive, Genitive *of*-phrase, Double Genitive**

In this section, an overview is provided of the format of prenominal possessive, genitive *of*-phrase and double genitive constructions.

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<sup>14</sup> Although a structural nature of abstract Case is identical in English and in Czech in the underlying d-structure.

<sup>15</sup> The details of the distinction see in e.g. Adger (2002) or more theoretically in Ura (1996) accessed through Arregi (1998).

Prenominal genitive and genitive *of*-phrase (which both realize abstract genitive Case) are in the selected grammars discussed side by side due to similar functional and semantic setup. Double genitive is considered special subclass of prenominal genitive.

With respect to terminology: for prenominal genitive, Quirk et al. (1985) use the terms "genitive" or "genitive case", Biber et al (1999) "s-genitive", Huddleston and Pullum (2002) "genitive construction"; genitive *of*-phrase is uniformly named *of*-phrase.<sup>16</sup>

### 3.2.1. Prenominal Possessive

In English, the marked genitive case is contrasted with an unmarked common case of nouns. Apart from nouns also pronouns have genitive form which is usually referred to as possessive case. All the three grammars<sup>17</sup> give a description of phonetic realizations of the genitive cliticized to a NP which is not really important for this paper, suffice to say that genitive is realized as an apostrophe plus genitive clitic consisting of apostrophe and s, 's with singular Ns and only apostrophe with regular plurals.

Very important is a section in respective grammars comparing the usage of prenominal genitive and *of*-phrase, it is discussed in detail below.

### 3.2.2. Prenominal Possessive vs. Genitive *Of*-phrase

In general, there is a competition between prenominal possessive and genitive *of*-phrase. Quirk at al. (1985) note that if both prenominal genitive and *of*-phrase are acceptable with respect to N1 (and if N2 can appear in prenominal genitive and in genitive *of*-phrase), "the function and meaning" of both constructions is in many cases equivalent as in (14) and (15).

- (14) *The ship's name* was *Fram*, and the man was Roald Amundsen. (BNC: FP5 1)
- (15) [...] 17th century bill of lading included, among other recitals: *the name of the ship*, the date of sailing, the cargo, conditions under which [...] (BNC:FR7 3)

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<sup>16</sup> Examples in this section are from Quirk et al. (1985) if not marked otherwise.

<sup>17</sup> Quirk et al. (1985), Biber et al. (1999), Huddleston and Pullum (2002).

In (14) the head noun *name* is pre-modified by the NP *the ship* which is assigned genitive and in (15) the same head noun is post-modified by an *of*-phrase containing the same NP *the ship*. Quirk et al. (1985) does not specify what he means by "function" and "meaning" at this point. Supposedly, by function the author means a syntactic role of the phrase in the matrix of a sentence, e.g. subject. By meaning, I assume, the author means that the denotation of the phrase which is not influenced by the change of the position from pre- to postmodification. Although, I think this claim is questionable (with respect to focus and prominence on the final constituent in the phrase), what the author is describing by the similarities of the two structures is explained by the fact that the two structures are interpreted as very similar and moreover they both plausibly represent the same abstract Case.

However, there is different distribution of prenominal genitives and respective *of*-phrases. Not for all nouns<sup>18</sup> is it acceptable to appear in genitive or in the respective *of*-phrase. Both options are allowed for only a limited number of nouns. Most nouns occur predominantly in prenominal genitive or genitive *of*-phrase. There are several conditions which decide whether N1 takes prenominal genitive or respective *of*-phrase.

### 3.2.3. Preference for Prenominal Possessive

This section and following subsections are concerned with the preference for prenominal genitive vs. genitive *of*-phrase. The following paragraph gives examples of conditions under which only a prenominal genitive is acceptable for a noun (and *of*-phrase is ungrammatical). They are specified in three areas according to Quirk et al.:

- (16) the **relational meaning** between the genitive and head noun,
- (17) specific **type of a noun** which takes the genitive and
- (18) the **type of the head noun** (pre-modified by the genitive)

(Quirk et al. 1985, 321).

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<sup>18</sup> In the text here, I will often for simplicity and because of their often bare characteristics, use a term "noun" or N2 in spite of the fact that English genitives are always NPs.

The genitive is used if a certain combination of the above conditions is achieved. If the setup of the conditions is not achieved, the genitive is not acceptable with respect to a noun and the "equivalent meaning and function" are expressed by an *of*-phrase as demonstrated in (19) and (20).

- (19) *Then they all moved to **the front of the house** to watch the road and wait.* (BCN: A6N 11)
- (20) *\***the house's front***

Although the phrase in (19) is in the same relation to the phrase in (20) as the phrase in (15) is to the one in (14), the phrase in (20) is not acceptable. In the next section the reasons are explained with respect to the combination of the three areas of conditions (16)-(18).

### 3.2.3.1. Relational Meaning between Possessive and Head Noun

Possible relations between N1 and N2 are classified into eight categories according to semantics, in Table 2 in (21) which is a summary taken from Quirk et al. (1985, 321).

(21)

Class of Genitive	Example Phrase	Meaning
1. Possessive Genitive	<i>my wife's father</i>	<i>My wife has a father.</i>
2. Subjective Genitive	<i>the boy's application</i>	<i>The boy applied for...</i>
3. Objective Genitive	<i>the family's support</i>	<i>(...) supports the family.</i>
4. Genitive of Origin	<i>the girl's story</i>	<i>The girl told a story.</i>
5. Descriptive Genitive	<i>a summer's day</i>	<i>a summer day</i>
6. Genitive of Measure	<i>ten day's absence</i>	<i>The absence lasted 10 days.</i>
7. Genitive of Attribute	<i>the victim's courage</i>	<i>The victim had the courage.</i>
8. Partitive Genitive	<i>the earth's surface</i>	<i>The earth has (...) surface.</i>

**Table 2:** Relational meaning between N1 and N2.

In (21) the classes are listed from the most frequent to the least common, 1.-8. The classes are not purely semantic categories as it is clear from the titles such as "subjective" and "objective". Moreover, even if these clusters are

helpful for realization of the range of differences within a single grammatical construction, the author admits that the categories are interpretational and rather arbitrary and they do not provide complete explanation for grammaticality of (19) or ungrammaticality of (20).

A crucial observation is that genitive phrases tend to be interpreted as subjective and *of*-phrases as objective. So "with inadequate context" a phrase like (21.3) tends to be interpreted as subjective (as *the family supports A<sub>OBJ</sub>*) even though prototypically, it is interpreted as objective (as *A<sub>SUB</sub> supports the family*).<sup>19</sup> The relational meaning of N1 and N2 is one of three conditions contributing to the un-/grammaticality of a genitive NP.

### **3.2.3.2. Type of Noun which Takes Prenominal Possessive**

The second area of conditions deals with the types of nouns taking the genitive. The category of gender is in focus, specifically, nouns highest on the animacy scale which represent higher species (especially humans) frequently take the genitive suffix: personal names and nouns, higher animal nouns, as demonstrated in (22). Quirk et al. (1985, 322) demonstrates, however, that the noun does not necessarily need to have these properties per se, also collective nouns allow the genitive if they represent body of people, as in (23).

- (22) *John's problem, my mother's problem, dog's ears*
- (23) *government's decision*

Quirk et al. (1985, 324) also mentions that nouns which lack these properties generally appear in respective *of*-phrase but there are several categories of inanimate nouns which use the genitive: geographical names, locative names, temporal nouns and also nouns which have "special relevance to human activity".

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<sup>19</sup> The interpretation in terms of semantic roles (i.e. as subjective vs. objective) is discussed in more detail in section 0. In that section I use different, more accurate terminology.

### 3.2.3.3. Type of Head Noun Pre-modified by Possessive

Further on Quirk et al. (1985, 325) examine types of nouns acting as head of the genitive phrase providing a list of such lexical heads (e.g. *edge*, *end*). He notices that some of these lexical heads do not fulfil any of the above mentioned conditions but they form genitives anyway. Some of the heads allow genitive *of-phrases*, as well. Exception from this rule are phrases which are considered compounds, these do not take genitive *of-phrases*.

Another factor which influences whether a noun selects a genitive or a genitive *of-phrase* is the end-weight and end-focus principle. It states that more complex or communicatively significant units tend to be placed towards the end of a NP. That means that in genitive the head noun which is at the end of the phrase is in focus (in *of-phrase* the focus is on the complement after the preposition). The relevant phrases from examples (14) and (15) are repeated here for convenience as (24) and (25) with the constituents in focus in bold.

- (24) *the ship's name*  
(25) *the name of the ship*

One more important characteristic of the genitive is its grammatical status. Genitive can be either determinative or a modifier<sup>20</sup> of the head noun. With the double genitive the former of the two is relevant. The determinative genitive fills the position of central determiner and thus it is in complementary distribution with articles, demonstrative pronouns etc. However, it can be preceded by another central determiner. This determiner has scope over the genitive but not over the head noun, see (26). It is clear from the interpretation of (26) that the N1 *bike* belongs to *my father*, not to me. The example demonstrates that the genitive N2 does not consist of one word, it is a phrase, NP, instead

- (26)  $\text{NP}_{\text{SpecNP(Gen)}} [\text{my father's}]_{\text{N}} \text{bike}$

The structure of (26) implies that the genitive constitutes a phrase which is embedded within a superordinate noun phrase and thus all constituents related

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<sup>20</sup> Modifier genitive is referred to as *classifying*, *descriptive* or *attributive* genitive, as well.

to N2 take scope over the genitive N2 not over the head noun N1 of the superordinate noun phrase.

With respect to determination, N2 is either definite or indefinite. Proper nouns always have definite reference. This opens a space for an indefinite double genitives, see (27).

- (27) a. *Mary's book*  
b. *a book of Mary's*

### 3.2.4. Genitive *of*-phase

Quirk et al. (1985) start the description of *of*-phrases with a statement that prepositional phrases post-modifying a noun are the most common of all types of post-modification and moreover, the preposition *of* is the most common preposition in this context. Although not all *of*-phrases are genitive ones, the claim about high frequency applies also to them. Corpus findings of Biber et al. (1999, 302) prove that the genitive *of*-phrase is much more frequent than the prenominal genitive

*Of*-phrase structure, like prenominal genitive construction, consists of two parts. The superordinate N1 is followed by a PP. While genitive possessor in prenominal genitive functions always as a definite determiner of the following head noun, *of*-phrase postmodifies and thus the field of determination of the head noun is available for both definite and indefinite constituent. Phrases in (28) and (29) have possible genitive correspondents (in brackets), while phrase (30) doesn't have a corresponding prenominal genitive structure. Such distribution of definite and indefinite constituents is acceptable only in double genitive.

- (28) *the member of the party* ≈ *the party's member*  
(29) *the member of a party* ≈ *a party's member*  
(30) *a member of a party* ≠ *a party's member*

As with prenominal genitive Quirk et al. (1985, 1277) proposes the factors which allow presence of the *of*-phrase selected by a head noun (rather than a

genitive). They are complementary with genitive selection principles, i.e. they consist of lexical factors, relational factors, objective and subjective relation, syntactic and communicative factors.

(i) **Lexical choice** of *of*-phrase is mutually exclusive with the choice of prenominal genitive phrase: [-HUMAN] and concrete nouns prototypically require the *of*-phrase, (31)a. versus b.

- (31) a. *the roof of this house*  
b. \**this house's roof*

(ii) With respect to **relational factors** some constructions such as partitive and quantitative don't appear in genitive and they opt for *of*-phrase, see (32)<sup>21</sup>.

- (32) a. *a glass of water*  
b. \**a water's glass*

(iii) In the part on **objective and subjective relations**, Quirk et al. describe whether *of*-phrase captures rather objective or subjective relation between the head noun (N1) and the noun in the *of*-phrase (N2) using sentential analogues. In general, *of*-phrases are interpreted to express objective relations (33)a. (while genitive incline to subjective relations (33)b.) if there is not counter-indication which would lead to a contrary interpretation. However, there are many exceptions to this rule.

- (33) a. *the imprisonment of the murderer* ≈ Someone imprisoned the murderer.  
b. *my sister's friend* ≈ My sister has a friend.

(iv) Within the **syntactic factors** influencing the choice of *of*-phrase Quirk et al. discuss various expansions of both genitive noun phrase types heads which

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<sup>21</sup> The examples in (25) could be taken for examples of the previous group as well, as long as the N2 are [-HUMAN]. Quirk et al, however, discuss this group separately.

result in choice of prenominal genitive (e.g. restrictive modification of N1, (34)a.) or *of*-phrase (post-modification of N2 (34)b.) construction.

- (34) a. *a friend's arrival which had been expected for several weeks*  
b. *the arrival of friend who had been studying for a year at a German University*

(v) The **communicative factors** refer to the end-focus and end-weight principles which were mentioned in the above section 3.2.3.3.

Biber et al. (1999, 305) compare a proportional use of prenominal genitives and genitive *of*-phrases for presenting given and new information. The result is that prenominal genitives are generally preferred for presenting given information and genitive *of*-phrases for presenting new information.

In conclusion, in Quirk et al. (1985, 1277) conditions for selection of genitive or *of*-phrase are stated basically as follows:

- (35) **of-construction** is preferred with inanimate concrete N2s for expressing objective relations,  
(36) **prenominal genitive** construction is used with higher animate, especially personal nouns for expressing subjective relations.

### 3.2.5. Double Genitive

The main focus of this thesis are double genitives, composed of a combination of *of*-phrase and genitive clitic assigned to the NP in the *of*-phrase. Example (1) is repeated here as (37).

- (37) a. *a friend of Jim's*  
b. *a friend of mine*

All the three grammar books, surveyed in the introduction here, mention the double genitive construction. In this section I will define the construction from point of view of the three grammar manuals.<sup>22</sup>

There are differences in terminology, Quirk et al. (1985) call the construction *post-genitive*, Huddleston and Pullum (2002) *oblique genitive* and Biber et al. (1999) *double genitive*. All three titles are supported by argumentation: for Quirk et al. (1985) the most crucial property of the construction is its postnominal position in the phrase (as opposed to the genitive in the canonical prenominal position), Huddleston and Pullum (2002) emphasize the indirect relation between N1 and N2, while Biber et al. (1999) simply stick to the traditional and most widely used terminology.<sup>23</sup>

According to Quirk et al. (1985), this structure is exceptional for several reasons: the morphologically marked 's genitive does not premodify a NP and it is not an elliptical realization of the genitive (bare genitive). Instead, it is a complement of the preposition *of* in the *of*-phrase. The author claims that the main difference between the genitive in predetermination of N and the double genitive is in **definiteness** and **familiarity**. While the genitive which pre-modifies a noun has a scope over it and thus the head noun is always definite and familiar, the head noun in double genitive is indefinite<sup>24</sup>, as in (37). On the other hand N2 in double genitive is always definite and [+HUMAN]<sup>25</sup> (Quirk

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<sup>22</sup> Quirk et al. (1985), Huddleston and Pullum (2002) and Biber et al. (1999).

<sup>23</sup> I use the traditional terminology as well because the most appropriate term for the double genitive can only be the result of my analysis.

<sup>24</sup> However, indefiniteness of N1 in double genitive is questioned by both Huddleston and Pullum (2002) and Biber et al. (1999). My corpus findings, such as *this Doyle of yours* also refute this limitation.

<sup>25</sup> Cf. Christianson (1997, 102) points out that high position of N2 on animacy scale is often stated to be one of the conditions under which it is possible to use double genitive. Similarly, the possessive pronoun *its* referring to inanimate entities is excluded from N2 position of this construction, as exemplified in (i)a. However, Christianson argues that if N2 (possessor) can be personified (as with pets, ships, cars), the double genitive becomes available, as in (i)b.

- (i)    a. \**What a beautiful horse. That mane of its is really gorgeous.*  
          b. *What a beautiful horse. That mane of hers is really gorgeous.*

Thus I assume that the grammaticality of double genitive in fact does not depend on the animacy of N2 but on the evaluation of the entity as being animate.

1985, 331; 1283). Indefinite head condition explains why double genitive cannot have proper noun as head.<sup>26</sup>

Quirk et al. (1985) try to explain that the impact of the indefinite head and definite N2 conditions referring to the fact that double genitive contains a partitive as one of its characteristics. Partitive construction in (39) has similar interpretation as double genitive in (38).

- (38) *a friend of his father's*  
(39) *one of his father's friends*

However, I claim, there is one difference between the two. The partitive construction presupposes more than one element, in this case it means that *his father* has more than one friend. In (38) this condition does not apply, the father might have one friend or more friends.

Quirk et al. mention also double genitive constructions containing demonstrative as premodifier of N1, (40).

- (40) *that wife of mine*

The author claim that in such cases, familiarity is presupposed and the construction work as apposition, the demonstrative is not used to define the head N1 which usually denotes one existing entity (*one wife*). If more entities do exist, the phrase with demonstrative is not interpreted as partitive, (41).

- (41) *That hand of mine won't go the right shape although I've tried, I knew it would deform joints and so I put all my efforts into spreading them the opposite way [...] (BNC: G4G 1)*

Quirk et al. very briefly touch upon the issue of interpretation of indefinite double genitive in comparison with genitive of-phrase, which are summarized in Table 3 in (42) taken from Quirk et al. (1985, 1284).

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<sup>26</sup> Nonetheless, both Biber et al. (1999) and Huddleston and Pullum (2002) refute this limitation.

(42)

construction	interpretation
<i>a painting of my sister's</i>	done by my sister or belonging to my sister
<i>a painting of my sister</i>	representing my sister
<i>a painting by my sister</i>	done by my sister
<i>a painting of my sister by my brother</i>	representing my sister and done by my brother

**Table 3:** Interpretation of NP postmodified by indefinite double genitive, genitive of-phrase and *by*-phrase.

The interpretation and the analysis of semantic roles will be discussed in section 6.

Huddleston and Pullum (2002) use the term ***oblique genitive*** for the phrase referred to as double genitive in this study. Unlike Quirk et al., they do not discuss the position of the double genitive following not preceding the head noun, the most important characteristic. They focus not on the position but on the relation between the head noun (N1) and the genitive phrase (N2). According to them, the relation is not direct because there is a preposition *of* between the two, thus they mark the Case using the term oblique.

Huddleston and Pullum (2002) explain the occurrence of the double genitive structurally. In a prenominal genitive NP, the central determiner slot is occupied and thus unfit for other central determiners. In double genitives the position of the central determiner preceding N1 is free for another determiner. While (43) is unacceptable because the position of the central determiner is occupied by two constituents, (44) is acceptable.

- (43) \*[ central det *a* [central det *Kim's* [*friend*]]]

- (44) *a friend of Kim's*

- (45) *those/all/both friends of Kim's*

Thus the double genitive is a structure capable of holding two potential central determiners compactly. The authors also state that while N2 has always definite reference in double genitives, N1 might be interpreted as indefinite.

Apart from double genitives with indefinite pre-modification or demonstrative premodifier, Huddleston and Pullum (2002) mention premodification by definite article. Quirk et al. (1985) claim double genitives with pre-modifying definite article ungrammatical. Huddleston and Pullum (2002, 468-9) point out the acceptability of such phrase if it is post-modified by a relative clause as in (46).

(46) *the friend of Kim's that I met in Paris.*

In my opinion, the reason why construction like \**the friend of Kim's* are not acceptable without post-modification is explained by the principle of language economy. In a prenominal genitive phrase such as *Kim's friend*, the reference is always definite. Prenominal constituent *Kim's* fills the position of central determiner and thus the head noun has always definite reference. The more simple genitive construction prevails.

From the other two grammar books mentioned previously, Biber's et al. (1999) is different in its corpus-based approach. The description of language is drawn from corpus data analysis and thus not only structure of grammatical features but also their use in context and distribution in registers is provided<sup>27</sup>.

Biber et al. (1999) use the term double genitive for the construction and define it through the possibility of the head noun to take genitive of-phrase which contains genitive clitic 's.

Biber et al. (1999) compare double genitive with other related constructions (especially prenominal genitive). The constructions are considered related because there is a competition between them with respect to use, according to data analysis from a corpus.

Same as Quirk et al. (1985), Biber et al. (1999) point out that the head noun is typically preceded by an indefinite article (or demonstrative).

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<sup>27</sup> The Longman Spoken and Written English Corpus is used.

As for restrictions on N2, it is noted that the double genitive containing noun in the *of*-phrase is far less common than a corresponding construction with possessive pronoun. Compare (47)a. and b.

- (47) a. *a friend of Kim's*  
b. *a friend of hers*

With respect to registers, constructions with initial indefinite determiners *a/an* are not very common in literature but prevail in conversation according to the corpus data. Regarding the lexical variation in this type of construction, Biber et al. (1999, 309) observe that: "[c]olloquational patterns are striking, with the great majority of instances containing *friend* or some other noun denoting a personal or social relationship."

The above section summarizes the double genitive as seen by traditional grammars, represented by the most standard manuals. All of them provide some level of descriptive accuracy, however, they do not focus on the syntactic relations or semantic roles of the genitive phrase, and therefore when applied to explain e.g. the grammaticality of (7) versus the ungrammaticality of (8) or (9) they are not sufficient.

### 3.2.6. Pre-modification of Double Genitive

Before proceeding to the syntactic analysis of double genitive, I will mention here a useful classification of pre-modification of double genitives by Abel (2006).

Abel (2006, 1) divides double genitive to three subtypes according to the determiner introducing the construction:

- (48) a. **the indefinite** (*a book of John's/ some books of John's*)  
b. **the definite** (*the book of John's that you read last night*)  
c. **the demonstrative** (*that book of John's*)

As the author points out, the existing analysis of double genitive (Barker 1998, Kayne 1994) always focus on one or two types but none explain all the three

constructions, even though they share unifying characteristics. The author provides complementing information on the format of the structures: in the indefinite double genitive, N1 pre-modifiers comprise apart from the indefinite article, numerals and non-numeric quantifiers, (49).

- (49) *a/two/some/few/many book/s of John's*<sup>28</sup>

The definite double genitive most typically occurs with restrictive relative clause, as in (50). Exceptionally it might occur with pre-head adjective or post-possessor prepositional phrase, (51).

- (50) *the book of John's that you read last night*

- (51) a. *the yellow sweater of John's*  
b. *the book of John's on the shelf*

As the author points out the demonstrative double genitive in which the N1 is pre-modified by demonstrative *this* or *that* is considered most idiosyncratic of the three subtypes. In example (52) the head noun tend to refer to a unique entity known to the discourse participants.<sup>29</sup>

- (52) *that mother of mine*

Abel's (2006) description of the format of the double genitive may be more compact than those provided in the selected grammars.

The overview of format of double genitive is in Table 4, in (53) The optional constituents are in brackets.

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<sup>28</sup> Examples in this section are Abel's (2006).

<sup>29</sup> After this general description, Abel (2006) provides analysis of the double genitive, called the "Focus Hypothesis", analyzing the three subtypes as focus constructions.

(53)

Determination field	Premodification field	Head Noun (N1)	of N2's	Postmodification field
Det [+/- def]	A	<i>N1</i>	of N2's [+def, +anim]	relative clause
<i>a</i>	¤	<i>book/father</i>	<i>of John's/mine</i>	¤
<i>the</i>	(nice)	<i>book</i>	<i>of John's/mine</i>	<i>that you read</i>
<i>the</i>	(good)	<i>friend</i>	<i>of John's/mine</i>	<i>who we met</i>
<i>this/that</i>	(nice)	<i>book</i>	<i>of John's/mine</i>	( <i>that you read</i> )
<i>this/that</i>	(old)	<i>father</i>	<i>of John's/mine</i>	( <i>who lives in Bath</i> )

**Table 4:** Characteristics of three subtypes of double genitive.

In the next section I start with general structure of phrase structure. After establishing the VP and NP parallelism in post- and pre-modification, the analysis of genitive constructions is to be conducted.

## 4. Syntactic Structure in Generative Perspective

The aim of this paper is the analysis of the double genitive phrase in a more complex than descriptive way. That means I will try to discuss the phenomenon from the perspective of syntactic and lexical structure, thus ultimately explaining the grammaticality of such cases as (7) in contrast with ungrammaticality of (9).

In order to do so I will start with a description of general principles of phrase structure in generative tradition in the next section. Their development led to the proposal of X-Bar theory which accounted for the parallels among different phrases. The focus is on the parallels between VP and NP. Consequently, an analyse of the structure of the double genitive in terms of the universal phrase structure is given using Radford's (1997) analysis to determine sentence function of the double genitive. In the final section 6 brief analysis is provided of the interpretation of double genitives in terms of semantic roles.

### 4.1. Phrase Structure in Generative Perspective

This section concentrates on the phrase structure in generative perspective. Starting with the phrase structure before the rewrite rules and ending with X-Bar theory which includes the functional layer. This section is based on Haegeman (1999) and Adger (2002).

There is a lot of evidence that syntactic structures are hierarchical in their nature<sup>30</sup> so the syntactic structure of a phrase is traditionally represented by a tree diagram<sup>31</sup>, i.e. graphical visualization of the syntactic relations of the constituents in a phrase which capture the hierarchy. A phrase consists of words which combine to higher organizational units according to certain rules. Phrase is **endocentric**, i.e. it consists of a **head** and **words** in pre- and post-modification. Heads of phrases represent words from lexical categories of verbs, nouns, adjectives and prepositions. Lexical category of a head determines the syntactic category of the phrase (e.g. Verb - VP). The words from the lexicon can be inserted to the bottom nodes in the tree structure for clarity. Representation of lexical items in the structure, the terminal nodes

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<sup>30</sup> Adger (2002, 51) mentions several constituency tests e.g. replacement and clefting test.

<sup>31</sup> Labelled brackets method is also commonly used to represent a syntactic structure of a sentence but it does not capture the hierarchical structure graphically.

combine to higher grammatical constituents, to phrases and ultimately they form a representation of a sentence.

The concrete principles according to which words combine to phrases were first proposed by Naom Chomsky (1957). In this study he devised a new method of representation of sentences, rewrite rules. Rewrite rules are formalized grammar rules of a particular language so that it is possible to represent syntactic structure of sentences. A set of rewrite rules for a minimal English sentence is in (54)<sup>32</sup>.

- (54) a.  $S \rightarrow NP\ VP$   
b.  $VP \rightarrow V\ (NP)$   
c.  $NP \rightarrow (Det)\ N$

The first rewrite rule captures the fact that a prototypical sentence consists of VP and NP. The structure of the respective phrases follows in the next two rules. Terminal nodes in the tree structures (constituents behind the arrow) are associated with words from the lexical category. The brackets around NP and D show that these constituents are or are not obligatory depending on a particular lexical entry. For example, a verb phrase of a verb which does not require any complementation, an intransitive verb, such as *sleep* is represented as  $VP \rightarrow V$ . The optional NP constituent is not present in this case.

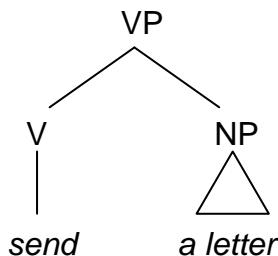
The lexical insertion rule states that the presence of other obligatory constituents in a phrase (apart from the head) is determined by argument(-s) required by the head, more specifically, by the subcategorization (c-selection) frame of a specific entry from the lexicon. If a verb requires a NP, this information is specified when the word is inserted and it is reflected in the structural representation, e.g. when a verb requires an internal NP argument, the rewrite rule (54)b. is specified and the phrase has the following structure (55).

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<sup>32</sup> The rewrite rules below capture the structure of simple sentences, more complex sentence containing e.g. adverbials or adjectivals would require more optional constituents in the rewrite rule.

(55) *send a letter*

$\text{VP} \rightarrow \text{V NP}$



To describe relations between constituents in the syntactic representation, several key terms are used: dominance, precedence and governance. Dominance describes relations on the vertical axis of the representation: In (55) VP dominates V and NP because it is higher in the tree and the branches go downwards only. Horizontal relations are described in terms of precedence: V precedes NP, it is left to NP, it does not dominate NP and NP does not dominate V. V and NP are sisters.

The relation of governance is a more complex phenomenon; in a simplified version, a government by a head is defined as follows: V governs NP because V is the head of VP and V and NP are sisters. To sum up in (55) the tree represents that V *send* precedes and governs the NP *a letter*.

Considering the branching of the tree structures, it is universally binary. Binary branching is assumed because it is believed that a binary system is more adequate than branching with more nodes with respect to language acquisition data and thus explanatory adequacy.

The discussed rewrite rules are observationally adequate; however, they apply only with respect to one specific lexical category phrase (VP, NP etc.). They cannot capture parallels among syntactic structures of different phrases which were generally observed. To deal with this inadequacy Chomsky (1970) deduced that if information depends on a particular lexical entry, it cannot be property of the whole lexical category (of e.g. V, N) and thus it must be inserted into the structure when the lexical entry is attached. So it is not a part of syntax (but more likely of semantics). On the other hand, for example, the fact that complementation always occurs at one side of a head (it follows the head in English)<sup>33</sup> qualifies as syntactic rule.

<sup>33</sup> The constituents might precede or follow the head depending on the parametric variation of the language.

The rewrite rules discussed above failed to capture these general syntactic rules so to address this with this limitation a more universal model of phrasal structures, the X-Bar theory, was proposed.

#### 4.2.X-Bar Theory

Even before the X-Bar theory appeared, it was generally noted, that certain phenomena apply across the different phrase structure spectrum. Apart from the above mentioned head initial principle of English it was also observed that e.g. subjects of clauses and possessors of nouns behave in a similar way in phrases such as (56).

- (56) a. *he flew to London* - VP  
b. *his flight to London* - NP

Each major lexical category (V, N, P, A) had a set of rewrite rules which represented grammatical phrase structures and each grammatical phrase could be represented by a rewrite rule. Four phrasal rewrite rules were represented in hierarchical trees which were quite similar for all structures. This split to different categories according to lexicon was thus perceived as unnecessary.

Contemporary theory of phrase structures failed to describe or account for the attested similarities and parallels among hierarchical structures therefore a more unified theory of structure was needed. The X-bar theory was proposed as a module of generative grammar to deal with phrase structure rules.

As mentioned above, the complementation following the head to the right applies universally to all heads in English irrespective of semantic content of a particular head. So the VP rewrite rule representing this universal principle was freed from its lexical category and became:

- (57)  $X' \rightarrow X YP$ .

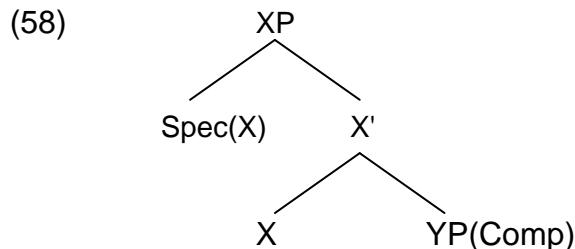
In (57) X represents the head and the terminal node of the phrase, YP stands for a Complement. An abstract label X replaced the specific lexical information

which is projected to it. The root nodes of NP, VP, PP and AP become XP thus X-bar theory<sup>34</sup>.

In X-Bar theory, the notion of insertion of lexical items to pre-existing structure was refined and replaced by a projection principle. It states that lexical information is syntactically represented. A word from a lexical category and its subcategorization frame are projected into the structure.

To account for the left periphery of structural heads structures, a higher projection level of a phrase was proposed:  $XP \rightarrow \text{specifier } X'$ . The projection of specifier of  $X'$  hosts elements preceding the head in a phrase. This position of Spec is unique in a phrase and together with  $X'$  they constitute the maximal projections representing the complete phrase.

As a result, the phrase structure rules are general and all the information (not derivable from the structure) is projected into the structure by a specific lexical entry. According to the theory, phrase in English has the structure as in (58). This structure allows for generalizations about various phrases.



To describe the universal structure in (58), the head of the phrase labelled  $X^{35}$  combines with the Complement YP. Together they constitute intermediate projection  $X'$ .  $X'$  is recursive, optional complementation is represented at this level. The highest level of projection, the maximal projection represents the complete phrase and is composed of  $X'$  projection and Spec position. Specs are usually optional and if there is no Spec in a particular phrase, the position is simply not projected.

<sup>34</sup> X-Bar theory originated in Chomsky (1970) and was generally accepted after Chomsky (1986a/b)

<sup>35</sup> Or alternatively  $X^0$  or  $X^{\min}$  with the "0" or "min" standing for minimal projection when no structure is in fact projected.

Looking at lexical realizations, the Spec position was claimed to be occupied by different elements for respective phrases. E. g. with respect to VP, there were many proposals: it was argued that the specifier position of a VP can be filled with floating quantifiers representing a part of subject, like *all* (Sportiche 1988)<sup>36</sup>, with an auxiliary or a subject (Cinque 1991). The latter two proposals correspond with the introduction of functional elements of inflectional phrase and complementizer phrase into the structural representations. These functional constituents crucial for analysis of larger syntactic unit, e.g. a sentence, consequently influenced development in NP, as well (the DP-hypothesis).

The following sections address the structure of VP focusing on the post-modification and functional categories in VP.

#### 4.3. The Verb Phrase Structure

The verb phrase is headed by a lexical entry of the verbal category. The specific verb projects its subcategorization (or c-selection) frame which determines whether the verb will have some arguments.

- (59) a. *run* [-Q]  
b. *buy* [-NP]

In (59) a. the verb *sleep* does not subcategorize for any argument. In a sentence it might appear with an external argument, which becomes realized as Subject. It is fundamentally different from the complementation on the right side of the verb, the internal arguments. It will be briefly tackled in the section on functional elements of VP. The verb *buy* will have two NP arguments a subject and internal Complement (object). These arguments are obligatory semantic complementation of the verb. The one following the head V is termed Complement.

Other complementation of a VP which is optional, such as PP might follow. The optional complementation of V is called Adjunct. A more complex VP is represented in (60).

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<sup>36</sup> Accessed through Haegeman (1991, 91).

- (60) [buy [an apple [in a shop [on Sunday]]]]

The verb is followed by a Complement and an Adjunct. To determine whether a complementation of a verb is a Complement or an Adjunct it is possible to conduct several tests. As mentioned, a Complement is obligatory argument of a verb, so if a Complement is required and it is omitted, the resulting structure is ungrammatical (61).

- (61) \*buy in a shop on Sunday

Moreover, the Complement has to be adjacent to V. If it does not immediately follow V, the VP is also ungrammatical (62).

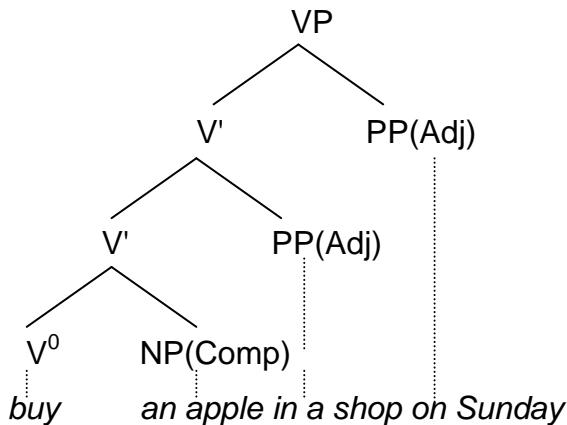
- (62) \*buy in a shop an apple on Sunday

The position of a Complement is unique in the VP, so if there are more Complements in the phrase the resulting construction is also ungrammatical (63).

- (63) \*buy an apple a banana in a shop on Sunday

Whereas Complement are unique and adjacent to the V (they are required by the V), Adjuncts provide additional information to the V' projection (V and Comp). There can be more Adjuncts in a VP. These relations are represented in (64).

(64)<sup>37</sup>



The head in (64) labelled  $V^0$  and NP Complement constitute  $V'$  an intermediate projections of  $V$ . The PP combines with  $V'$  and forms another  $V'$ . Adjuncts can be repeated, so the  $V'$  level is recursive in the VP. The complete VP containing  $V$ , NP Complement and PP-Adjuncts (the maximal projection of  $V$ ) is labelled VP.<sup>38</sup>

#### 4.4. Functional Categories in VP

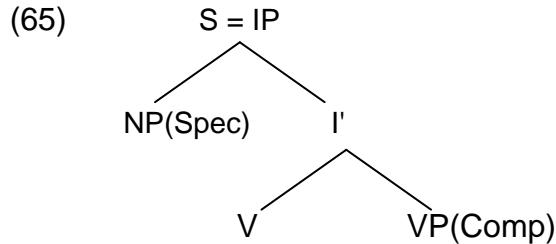
The need to represent syntactic structure of a clause and a sentence led in the 1980s to the introduction of so called functional categories. These categories allowed the field to include also grammaticalized elements as e.g. auxiliaries to syntactic analysis along with lexical categories and this led to further development of the X-bar theory.

Functional categories were traditionally marginalized and not considered a true part of syntactic theory. They do not have a clear head as lexical category phrases do. That is problematic in terms of X-bar because a head is a necessary constituent of a phrase. Before functional categories started to be recognized as important element of the X-bar structure, a sentence ( $S$ ) was considered a projection of a VP. This is problematic not only in terms of clear head distinction, moreover, such structure did not include e.g. auxiliaries or modals and thus it was impossible to syntactically describe clauses or sentences containing them. To accommodate for these functional categories expressing finiteness or infiniteness, a node I(nflection) was added as obligatory

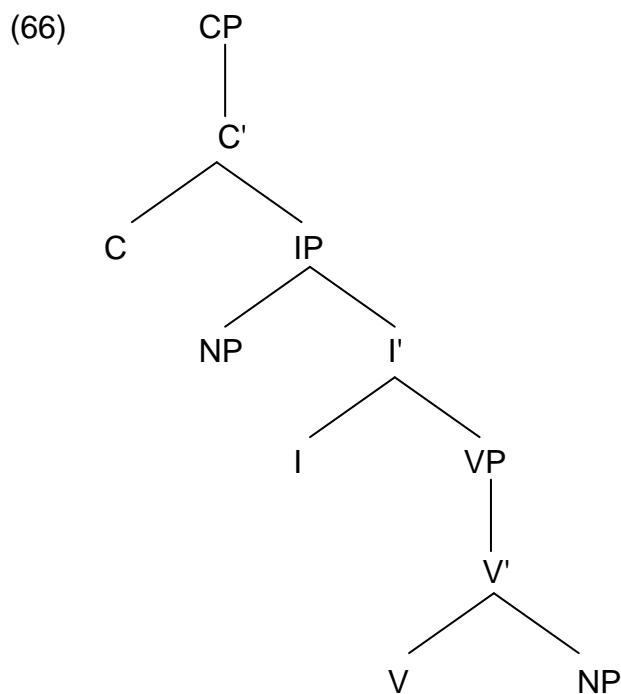
<sup>37</sup> I use combination of number and prime notation for convenience.

<sup>38</sup> In a sentence, the left periphery of the verb will be obligatorily occupied by a subject (NP) of the verb as it is required by the subcategorization frame and extended projection principle.

category in a sentence. The I node was proposed to precede VP which was its Complement and take NP (subject) as its Spec, so that the S as a maximal projection of a sentence without a clear head is substituted by IP, headed by I, see (65).



After IP was established into the structure, there was pressure for incorporation of more functional elements. C(omplementizers) were added into the structure to account for elements introducing subordinate clauses (e.g. *that*, *which*)<sup>39</sup>. Out of several possible analyses, the one most conforming to X-bar principles was generally accepted: a structure of a whole clause including C is in (66).




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<sup>39</sup> As in Stowell (1981).

The structure above is observationally adequate for English. The structure in (66) is able to capture both a./b. in (67) assuming that the morpheme representing I (i.e. *will* and *-ed*) can be realized in its canonical position or alternatively realised on the sister head of the canonical position (i.e. on V in (66)).

- (67) a. *John will help you.*  
b. *John help-ed you.*

For discussion of so called Affix hopping see already Chomsky (1957) and in more detail Emonds (1978, 1987). Moreover, there is a more detailed evidence from inflectional languages which express tense and agreement with subject (or object) by two separate suffixes. The following example (68) from Czech, which is an inflectional language, illustrate the discrepancy between a single functional syntactic position and two suffixes with different functions.

- (68) *Marie včera spa -l-a.*  
(sleep-past-3.sing.)  
'Marie yesterday slept.'

Such data led to development of split of IP into two separate elements of Agr(eement) and T(ense). AgrP hosts elements agreeing with Subject or Object and TP elements realizing tense.<sup>40</sup>

The following sections address the structure of NP, focusing on the post-modification, to draw parallels between NP and VP.

#### 4.5. The Noun Phrase Structure

Similarly as with VPs, the NP structure was first developed to encompass the lexical category of noun, the functional layer, known as DP was added later. This section I will start with a description of NP, arguing for parallelism of VP and NP complementation. The following section analyses double genitives from a perspective of complementation to determine whether they have

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<sup>40</sup> See Pollock (1989).

characteristics of complements or Adjuncts. The next section will provide overview of DP-hypothesis and the similarity between DP and IP.<sup>41</sup>

As with VPs (or any other lexical category), NP is headed by a lexical entry from the category of nouns. Nouns traditionally do not have a subcategorization frame, so they do not have clearly set argument grid as VPs (see (59)). A minimal noun phrase is projected into the rewrite rule in (69). It states that the only obligatory constituent in NP apart from the head noun is the determiner (depending on the lexical entry of the noun because e.g. uncount nouns do not require D).

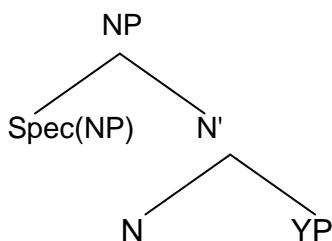
$$(69) \quad NP \rightarrow (D) N$$

The left periphery of a noun is occupied by a determiner, typically a functional constituent (e.g. article, demonstrative pronoun) which cannot function as an argument.

Abney (1987) proposes that a counter example of purely functional element in Spec(NP) position is a prenominal possessive phrase (such as *Jim's* in (2)) which contains a noun, a lexical entry, and thus a possible argument. Moreover, it was often noted that the relation between prenominal possessive and its head noun was similar to that of VP and subject. This similarity was plausibly explained only with appearance of DP-hypothesis, the discussion will be followed in section 5.1.

With respect to the post-modification of a noun, several constituents might appear there, typically *of*-phrase, prepositional phrases, adjectival phrases or clauses. The structure of a NP is in (70).

$$(70)$$




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<sup>41</sup> See Abney (1987).

The above mentioned N-post-modifiers are lexical categories (or contain lexical information) and so they could possibly be internal arguments of N. It seems that N-post-modifiers might be, similarly as V complementation, differentiated as Complements and Adjuncts. In phrase (71) the head noun is followed by three prepositional phrases (complementation grammatical also for a VP).

- (71) [a [photo [of a flower [in a silver frame [on the wall]]]

The following paragraphs will consider whether N-post-modifiers are distributed in a similar restricted way as V-post-modifiers. The discussion below summarizes the claims from Radford (1997) and Adger (2002).

In (72) genitive *of*-phrase immediately follows the noun and two other PP follow. If the *of*-phrase is not adjacent to the head noun, the whole phrase is ungrammatical. So it is the only position in which it can appear. *Of*-phrase in any other than adjacent position with respect to the head noun results in ungrammaticality of NP, as in (72). The adjacency of Complement test has the same outcome for both VP and NP. Thus a genitive *of*-phrase is considered a Complement of a NP. Other PP appear recursively and they don't need to be adjacent to the head N so they are considered Adjuncts. There is a parallel between the Complement position in VP and NP (*of*-phrase fills the position in NP).

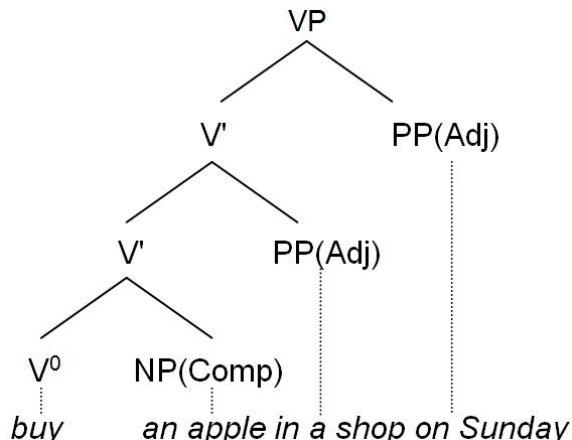
The tree structures of the VP in (60) and NP (71) representing parallels in structural relations of both phrases appear in (73).<sup>42</sup>

- (72) \*a photo in a silver frame of a flower on the wall

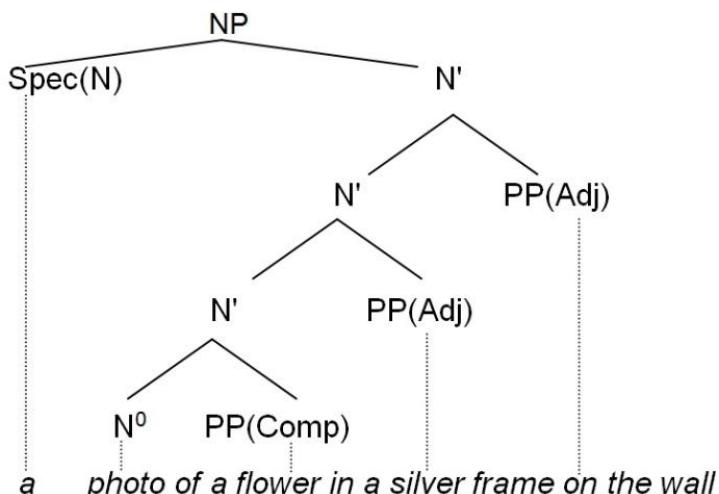
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<sup>42</sup> It is speculative whether the Spec position of N' adjoins to the complement or adjunct level. This issue will be resolved in DP-hypothesis.

(73) a.



b.



In prototypical cases as in (71) above, the analysis of Complements and Adjuncts in a VP is applicable to NP, as well. However, it is crucial that nouns do not require any obligatory post-modification and thus arguments. Any NP in which a noun is not followed by any Complement is perfectly grammatical (unlike a transitive verb which has to be complemented by an argument required by the subcategorization frame in a sentence). NP without complementation such as *a photo*, and with a complementation e.g. *a photo in a silver frame* are both acceptable in a sentence. However, a phrase *in a silver frame* even if it is adjacent to the preceding phrase, is not a Complement.

The way to differentiate Complements from Adjuncts with NP is not as straightforward as with verbs. In (73) the phrase *of a flower* is PP all the same as *in a silver frame*. So the differentiation by different part of speech does not work (as it does with verbs). With NP it is said that *of*-phrase is a Complement

of a NP. However, this division does not work without exception. With respect to double genitives there are several aspects obstructing the standard analysis of complementation to Complements and Adjuncts. In phrases such as (74)a. the *of*-phrase is adjacent, it cannot appear recursively as demonstrated in (74)b.

- (74) a. *a friend of mine*  
b. \**a friend of mine of yours*

So according to the above described rules applying to complementation of verbs, it should be analyzed as a Complement. In such a case it should be unique in a phrase. Nonetheless, with double genitive, there might be two *of*-phrases in the structure.

- (75) *a book of stories of John's*

Do two *of*-phrases in (75) mean there are two Complements in NP as there are in VP according to some argumentation with respect cases such as *to paint the door green*? Moreover, if any post-modifying constituents of a noun are optional is this differentiation between Complement and Adjunct even applicable with respect to NP? To answer the posed questions and to differentiate Complements and Adjuncts conclusively I will use Radford's (1997) analysis of NP Complements and Adjuncts in more detail in the following sections to provide argumentation for only one possible syntactic structure of a NP containing *of*-phrases and double genitives.

## 5. Syntactic Structure of Genitive *Of*-phrase and Double Genitive

This section deals with the syntactic position of genitive *of*-phrase and double genitive in NP.

Radford (1997) starts the analysis by suggesting a parallel between Complement in NP and in its sentential counterpart. The analysis is thus conducted on an example of NP head (*student*) which could be substituted by a semantically related verb (*study*).

- (76) a. *He is [a student of Physics]*  
b. *He is [studying Physics]*<sup>43</sup>

When following V the NP is a Complement in (76)a., when following N, the reading of Complement is preferred also in (76)b. If this test of clausal counterparts is applied to the same NP post-modified by different PP (*with long hair*), the result is ungrammatical corresponding VP, (77)b. However, this first step in Radford's analysis is applicable only to nouns which have a verbal counterpart, such as *student - study*. With the NP in (75) it is not possible.

- (77) a. *He is [a student with long hair].*  
b. \**He is [studying with long hair].*

The conclusion is, that the N + Comp construction have sentential counterpart, on the other hand N + Adj do not have such sentential counterpart with similar semantic meaning. In general, any other prepositional phrase following N than *of*-phrase, which is adjacent to the verb in the respective sentential counterpart results in ungrammaticality of the VP. Thus, in compliance with VP NP parallelism *of*-phrases are considered Complements, any other PP-Adjuncts.

In the next part of his analysis, Radford (1997) mentions also interpretative distinction between complements and Adjuncts. He somehow vaguely declares a general observation: that whereas Complements are providing crucial

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<sup>43</sup> In this section I use Radford's examples.

information about the head N, the Adjuncts just add additional information (as in (76)a. and (73)a.<sup>44</sup>

However, in terms of structure hierarchy the distinction between Complements and Adjuncts is defined more clearly. According to the general X-bar theory, Complements expand N to N' and Adjuncts expand N' to another N' (1997, 176). So Complements are lower in the structure, they are sisters of heads and thus they are governed by it. Adjuncts, on the other hand, are sisters of N'. The X-bar structure therefore predicts that Complements are adjacent to N and must always precede the Adjuncts. Adjuncts are further off from the N and recursive. This is the same with the complementation of VP and I will exemplify the relevant examples for NPs in the next sections.

The position of SpecN, usually filled with a determiner, is a sister of N' and in this respect it is similar to the position of Adjuncts. However, as daughter of the maximal projection NP, SpecN are unique whereas Adjuncts enlarging intermediate N' can be multiple.

Next Radford's point considering linear order of the constituents following N is already well described and illustrated in (72) above. I will not repeat it here.

Now, let us turn your attention to the part concerned with structural means of differentiation between Complements and Adjuncts in NP.

### **(i) Interpretation**

Radford gives an ambiguous example of a N complementation.

(78) *a student [of high moral principles]*

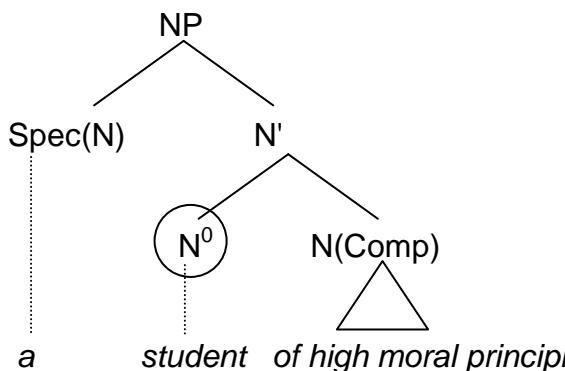
As Radford points out the PP in (78) might be interpreted in two ways: a person who a) has a high moral principles or b) a person who studies them. The possibility of dual reading is caused by different structural position of the constituents in complementation. The syntactic structure of the two reading is in

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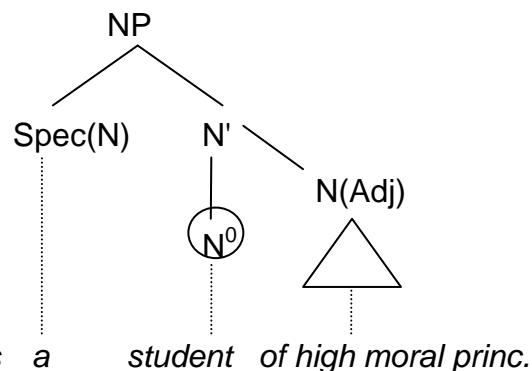
<sup>44</sup> The terms affectedness (used in lexical semantics) seems to be fitting. The head is affected by the constituent sitting in the position of complement, it is inalienable characteristic of it, but it is not affected by the constituent in adjunct position.

(79). While in (79)a. the constituent following the head N is in a position of Complement, in (79)b. it sits in a position of Adjunct.<sup>45</sup>

(79) a.



b.



### (i) Uniqueness vs. Recursivity

Another important claim supported by Radford's analysis is the recursion of Adjuncts and uniqueness of Complements. This point is illustrated in (73)b.

This is outline of Radford's analysis of positions of Complement and Adjunct in NP. I will apply it to double genitives.

The first step of the analysis, comparison of NP post-modified by a genitive *of*-phrase with its sentential counterparts is not applicable to double genitive. The possessor (*John's*) in both prenominal and double genitive cannot post-modify verbs, possessors are unique to NPs. This fact suggests that double genitive differs with respect to genitive *of*-phrases and is closer to prenominal genitives. Some feature of it makes it uniquely N-relating.

### (iii) Adjacency

Considering the adjacency and order of constituents in post-modification, double genitive might appear in N-post-modification together with a genitive *of*-

<sup>45</sup> The difference between the two readings might be described in terms of abstract case assignment, as well. In (79)a. accusative (object) case is assigned to the complement whereas in (79)b. genitive is assigned. The case assigner in (79)a. is the preposition *of*. In (79)b. however, the preposition *of* is only a case marker of the genitive. The issue of case assigner with (79)b. is not clearly resolved in literature, Chomsky suggests it to be equivalent to the exceptional case marking (ECM) when a noun assigns case to the right (Chomsky 1986, 198).

phrase. In (75) the genitive *of*-phrase is adjacent to N, double genitive is not. This order as attested in (80) is obligatory.

- (80) \**a book of John's of stories*

The result is that the *of*-phrase is analyzed as Complement and the double genitive as Adjunct.

In (81) I test the recursion of double genitive. The result is that double genitive cannot occur recursively, and it is also supported by my findings in corpus. This result suggests that the position of double genitive is unique in NP post-modification, it is a Complement position.

- (81) \**a book of John's of Mary's*

#### **(iv) Co-ordination**

With respect to coordination, another aspect of Radford's analysis differentiating Complements and Adjuncts, it is predicted that it is possible to coordinate Complements together and Adjuncts together but it is not possible to coordinate a Complement and Adjunct because they have different structural positions (Radford 1997, 190). Applied to double genitives examples in (82) show that whereas it is possible to coordinate two double genitives without determining their sentence function, it is not acceptable to coordinate genitive *of*-phrase (*of a flower*) as a Complement together with double genitive. Again, this shows that double genitive has different status than *of*-genitive but it is not clear whether double genitive sits in a Complement or Adjunct position.

- (82) a. *a student [of chemistry] and [of Physics]*  
b. *few pictures [of Jim's] and [of John's]*  
b. \**a picture [of a flower] and [of John's]*

## (v) Extraposition

Further argument in favour of differentiation of Complements and Adjuncts in NP is extraposition. Radford claims that for Adjuncts it is possible to be extraposed from their heads more freely than it is for Complements, (83).

- (83) a. *a student came to see me yesterday [with long hair]*  
b. *\*a student came to see me yesterday [of Physics]*

The author gives explanation in terms of structural positions. Complements are sisters of heads, they are more closely related to them. On the other hand Adjuncts are connected with their heads more loosely (he calls them aunts) and thus it is possible to extrapose them (Radford 1997, 191). Application of extraposition to double genitives proves it is not possible to extrapose them, (84). According to this argumentation double genitive is analyzed as Complement.

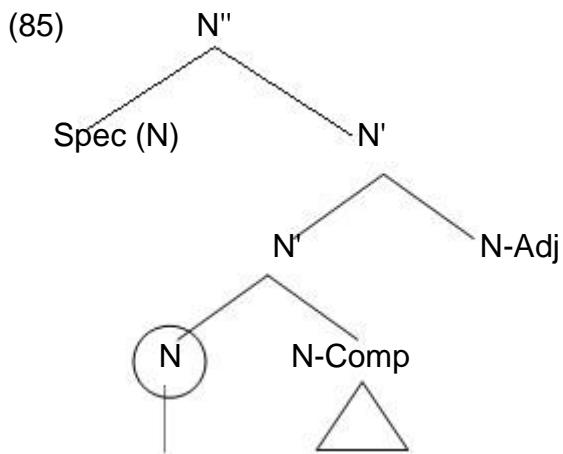
- (84) *\*a friend came to see me yesterday [of mine]*

Radford provides further differences to support the structural distinction in complementation of N to Complement and Adjunct. These include preposing, co-occurrence restriction and replacement test and they serve their purpose well if applied to a prototypical NP. Nevertheless, they are not applicable to analysis of double genitive.

To conclude, Radford analyzes post-modification of a noun and argues that there is a structural distinction between the position of Complement and Adjunct. This distinction works well when applied to NP with *of*-phrases and other PPs. When applied to double genitive, the applicable features of the analysis such as linearity, recursion and coordination and extraposition do not give the same kind of clear result. However, Radford's arguments do prove that double genitive does **not** occupy the structural position of Complement, the adjacent sister of the head noun because double genitive does not have to occur in N adjacent position.

There is also evidence suggesting it is not Adjunct either: it does not recur in NP structure as Adjuncts do, it does not allow extraposition.

Before claiming that double genitive occupies the Adjunct positions, another test is to be conducted. Double genitive is not canonically adjacent to the head noun which is the single most important claim why it cannot occupy the position of Complement. If it occupied the position of Adjunct it should allow insertion of a Complement constituent which would precede it. The respective structure is represented in (85).



I assembled a list of example phrases in which the head noun is post-modified by both Complements and Adjuncts in (86).

- (86)<sup>46</sup> a. \**those eyes of blue of hers*  
 b. \**a book to read of John's*  
 c. \**a present for him of John's*  
 d. \**a picture for Mary of John's*  
 e. *John; told that [story about his; mother] of Bill's.*<sup>47</sup>  
 f. *a picture of Mary of John's*  
 g. *a book of stories of John's*

In (86)a. the head noun is complemented with a postpositive adjective. Postpositive adjectives are quite rare in English and they usually originate in a

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<sup>46</sup> The example phrases (86) were attested with native speakers.

<sup>47</sup> Storto's example (2000, 218).

different language than English (French, Latin), thus they do not behave prototypically. The example in (86)a. was chosen not to be of foreign language origin. (86)b. is standard N-post-modification by non-finite clause, (86)c. and d. are also standard N-post-modification by prepositional phrases. (86)a.-d. are all refused by native speakers.

In (86)e the head N is post-modified by PP phrase, (86)f.-g. include genitive *of*-phrases as post-modification of N1. (86)d.-f. are considered grammatical.

Again double genitive shows mixed behaviour. Generally, it allows head N-post-modification by genitive *of*-phrase but (86)e. proves to be an exception. There also seems to be some semantic restriction operating. Nouns do not have an argument structure, however, semantic roles even if not obligatorily seem to be realized with respect to double genitive (and prenominal genitive). If they are realized, the semantic roles hierarchy seems to interfere with syntactic structure. Some semantic roles need to be realized adjacent to the head noun, whereas others are located in more peripheral positions.

Based on the evidence presented in this section, I determined that the double genitive does not occupy the position of Complement of NP, however, I was not able to determine conclusively if double genitive occupies the position of Adjunct.

In literature, apart from the 'Adjunct' analysis of double genitives, there exist one more analysis of double genitive, namely that by Kayne (1994), who favours the 'movement' analysis.

Movement analysis counts with functional categories as part of NP. Before addressing the movement analysis I will provide an overview of another important development the X-bar theory, focusing on the development of functional categories in NP, the DP-hypothesis.

### 5.1. The DP-hypothesis

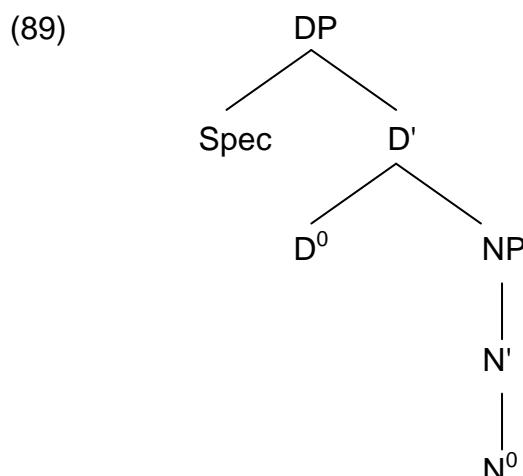
As mentioned above, due to development in VP structure the configuration of NP as in (71) was no longer compatible with the principles of X-bar theory. The VP structure was modified to accommodate functional elements, in particular CP, IP/TP and AgrP. There was a need to extend the nominal domain, to accommodate the functional field, as well.

In example (73)b. the specifier position is occupied by an indefinite article.<sup>48</sup> For a NP with simple premodification the structure in (70) seem to be observationally adequate. However, with more complex NPs containing more extensive premodification a structure with a single structural position preceding a noun head does not suffice. Moreover, there is a problem with a functional element appearing in a projection of lexical head (N). E.g. in (87) below, the Spec(NP) position hosts two functional elements (a quantifier and a determiner) and that is not possible in terms of the original X-bar theory.

- (87) [NP [Spec(NP)*all* *the* [AP*pretty* [N*horses*]
- (88)
  - a. [NP [Spec(NP)*the* [AP*pretty* [N*horses*]
  - b. [NP [Spec(NP)*John's* [AP*pretty* [N*horses*]

In (88) the inconvenience is that both functional **word** *the* in (88)a. and prenominal possessive **phrase** *John's* in (88)b. are considered Spec(NP) and thus a single position is occupied by constituents from word and phrasal level (Coene, D'hulst 2003, 1).

Abney (1987)<sup>49</sup> introduced a hypothesis solving these inconsistencies, in which a NP is a projection of a the functional element, D(eterminer)P. The proposed scheme of DP is in (89) shows the structure.



<sup>48</sup> Similar, even more complex tree see in e.g. Jackendoff (1977).

<sup>49</sup> Abney's work (1987) was based on Szabolcsi's analysis of Hungarian (1981).

According to Abney's analysis NP is a projection of lexical elements and DP (and potentially other projections, e.g. Agr) constitutes a functional layer. Comparing the "nominal" DP in (89) with the "clausal/verbal" scheme of the CP/IP in (66) it is apparent that the similarity of VP and NP is developed in pre-modification, as well as in post-modification.

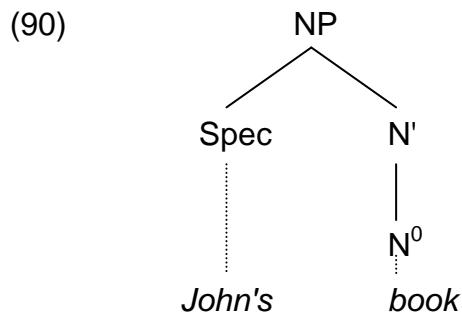
With the DP-hypothesis the overview of development in phrase structure is for the purposes of this study complete. The next section proceeds to describe syntactic structure representations of the three versions of Genitive in English under the DP-hypothesis.

## 5.2. The Position of Genitive in DP Structure

This section focuses on the position of prenominal possessive, genitive *of*-phrase and double genitive in the overall structure of DP.

### 5.2.1. The Position of the Prenominal Possessive in DP Structure

Before the rise of DP-analysis, the analysis of prenominal possessive construction was straightforward. The possessor, it was generally agreed, sat in the position of NP Specifier, as in (90).



In the pre-DP analysis, e.g. Chomsky (1986) argues that the possessor *John* assigned genitive case by the head noun *book*. The case is morphologically realized as 's clitic.

Abney's dissertation (1987) advocated the DP-hypothesis in the most complex way so far. One part of his work deals with the possible positions of the prenominal genitive suffix 's in the DP structure.

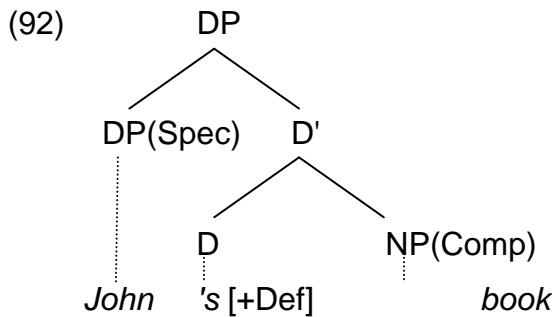
There are three suggested positions for 's. Abney proposes that 's could be a morphological case affix, it might be located in a position of determiner or

assigned by N or Agr position. An underlying question is the relation of 's to its possessor (Abney 1987, 51).

The first proposed option that 's is a morphological case suffix is not hold plausible. The genitive adds to a whole phrase premodifying the head noun (N1), not to the head (which is a single word) of the premodifying phrase.<sup>50</sup> The example is in (91).

- (91) NP[SpecNP(Gen) *the girl I met yesterday's*]N *bike*]

The second proposed option is that 's occupies the D position in the DP. 's in D position would explain why prenominal possessives do not co-occur with other determiners. The dilemma of missing D in a prenominal possessive phrase would thus be resolved, as well. Premoninal possessors always take 's clitic so if 's occupies the D position, it explains why prenominal possessives do not combine with other determiners. The reason why possessors do not occur with other determiners is that only 's can assign them a case.<sup>51</sup> The corresponding structure is in (92).

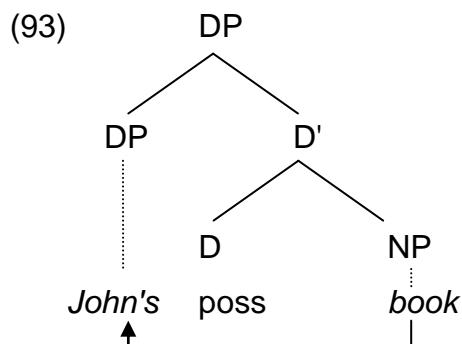


The disadvantage of this analysis is that if the determiner and possessor occupy the same position and the definite interpretation of the prenominal possessive phrase is not explained unless one proposes, that the clitic 's in D is marked with a feature [+Def] in the same way as e.g. definite articles or demonstratives are. I mark this option in the tree (92).

<sup>50</sup> As remarked above in footnote 3.

<sup>51</sup> Assignment of case is one of the principles of GB theory. A NP can be realized only if it has assigned case. The assignment of case to possessor by 's in a position of D in fact exactly parallel to case assignment to subject in VP.

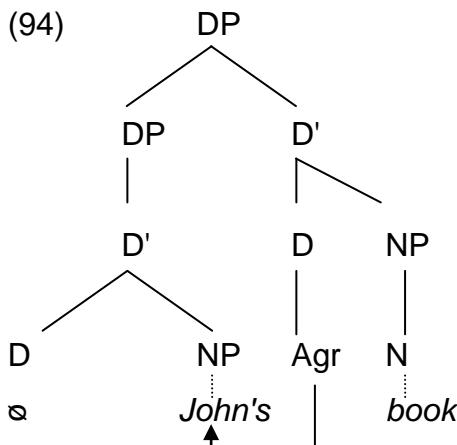
The third option Abney proposes is twofold, 's is realization of either N Case-assignment or Agr Case-assignment. The version "N Case-Assigns" demonstrated in (93) below, is based on Chomsky (1986) in which 's does not occupy any structural position, it is a genitive case marker of N. Genitive case is assigned at d-structure<sup>52</sup> by the head noun N1 to its possessor and is realized at s-structure as the marker of genitive case 's. In Chomsky's theory N needs to govern the 's position so that the GB theory rules are met. In DP-hypothesis, N does not govern 's because D is the head of the structure. Abney evades the need for governing N by introducing a s-government, a version of government in which the governed elements belong to the s-projection of a node, not to the c-projection (Abney 1987, 52-3). In (93) N1 *book* s-governs the possessor *John*'s so it is possible to assign genitive case realized as 's in the s-structure of the phrase. The s-government is however not considered plausible concept, if it is not utilized in another area of language theory too.



To avoid the need for s-selection concept, Abney introduces alternative of N Case-assignment proposal, the Agr Case-assignment version in which 's is considered genitive marker assigned by Agr (located in D) to its possessor, as in (94). The functional node Agr, existing in VP, is employed to case-assign NP *John* in DP, too.

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<sup>52</sup> The concepts of d-structure and s-structure are connected with the acceptance of movement in syntactic structure, d-structure refers to the level before movement which represents the theta structure "where all and only the theta-positions are filled by arguments (Chomsky 1986, 98). S-structure refers to the level after movement.



Under the 's as case marker analysis it is problematic that the determiner in D position never appears together with possessor. Abney's explanation is the process of determiner elision applying in English e.g. when a demonstrative occurs with a quantifier in a NP (*those [s hundred] nights*). The advantage of this analysis is the explanation of definite interpretation of prenominal possessive phrase. Assuming the elided determiner was definite, the interpretation of the phrase follows.

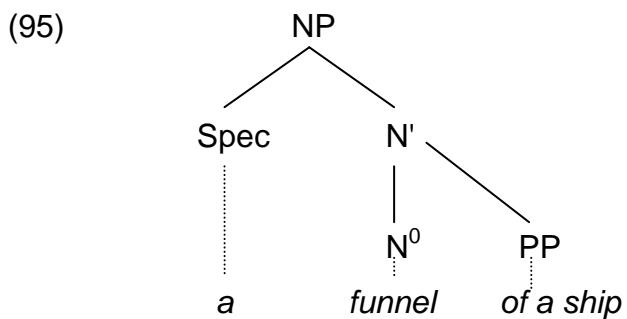
There are some variations of the Agr Case-assignment theory, most of them propose the possessor to sit in a position of Spec(Agr) or Spec(DP).<sup>53</sup>

### 5.2.2. The Position of *Of*-genitive in DP Structure

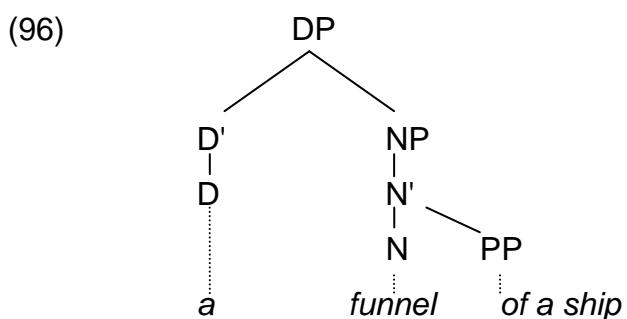
Similarly as with prenominal genitive, the *of*-phrase structural position before DP-hypothesis appeared was generally accepted and clear. According to Chomsky (1986) the genitive *of*-phrase is morphological realization of genitive assigned by the head noun<sup>54</sup>. The case assignment is the same as with prenominal genitive, only the realization differs. The dummy *of* preposition is inserted as genitive case marker.

<sup>53</sup> For more detailed discussion see e.g. Haegeman (1999, 437).

<sup>54</sup> The realization of genitive is the same if both prenominal genitive and genitive *of*-phrase is allowed with N1.



In syntactic analysis of genitive *of*-phrase, the DP-hypothesis did not play a crucial role. Genitive *of*-phrase is a postnominal constituent so when considering a phrase from (95), the only affected constituent is the determiner in premodification, (96). Genitive *of*-phrase is considered Comp of N.



### 5.2.3. The Position of the Double Genitive in DP Structure

With the double genitive, several analyses exist, the most important being Jackendoff (1977), Barker (1998) and Kayne (1994). They are briefly sketched below.

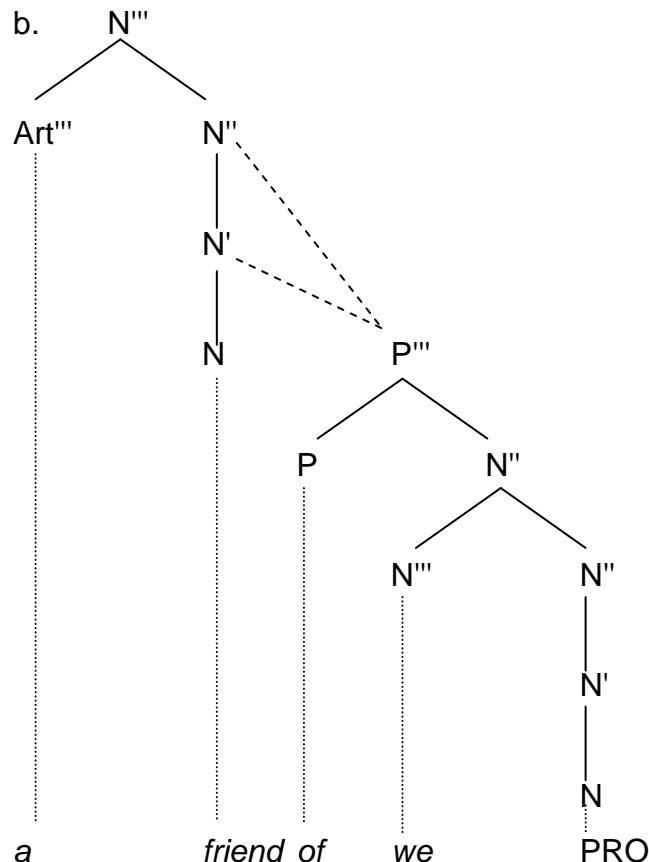
Jackendoff (1977)<sup>55</sup> is mainly concerned with the semantics of the double genitive. He analyzes double genitive as partitive, his syntactic structure of phrase *a friend of ours* is in a rather complex structure (97)b. Possessor *ours* is derived from the form *we* by means of substantivization (possessive insertion). The problematic part of this analysis is the PRO sitting in a position of N' (or N'') Complement.<sup>56</sup> He *de facto* claims that double genitive have d-structure such as (97)a. However, there is no evidence for assuming there is a missing

<sup>55</sup> Jackendoff (1977) terms double genitive *postposed genitive*.

<sup>56</sup> Jackendoff (1977) uses triple bar notation.

constituent at s-structure which at d-structure denotes the whole of all friends from which a *friend* (possessor) is selected (in the partitive construction).

- (97) a. *a friend of ours (friends)*



Barker's analysis focuses mainly on semantics of the phrase, as well. The syntactic structure is considered only implicitly. The author's partitive hypothesis claims that double genitive is a version of partitive phrase and thus phrases a. and b. in (98) are equivalent (Barker 1995)<sup>57</sup>.

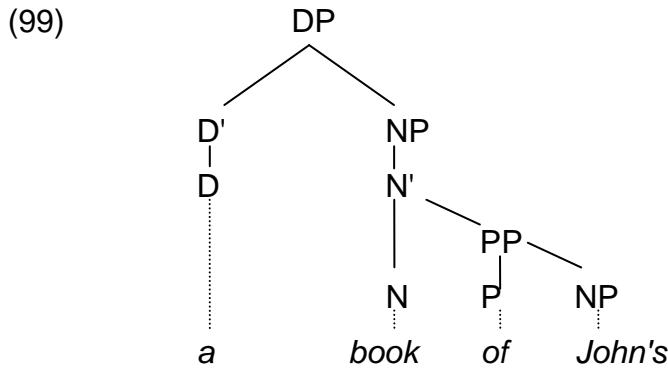
- (98) a. *one of John's books*  
 b. *a book of John's*

Under his analysis there are not two genitive markers in double genitive ('s clitic and preposition *of*). The preposition *of* marks partitive and the 's clitic genitive.

<sup>57</sup> Barker's hypothesis is based on Jackendoff (1977) who put ground in semantic analysis of double genitive as partitive.

By stating that the *of* in double genitive is partitive, Barker explains the possibility of occurrence of genitive *of* in the same phrase as in (98)b.<sup>58</sup>

The problem of this hypothesis is that it cannot explain the other two subtypes of double genitive, the definite (*the book of John's*) and the demonstrative (*that book of John's*). It is applicable only to the indefinite subtype. Barker does not provide the syntactic structure of his analysis, one which could be most trivially derived from his analysis is in (99).



Kayne's (1994) analysis of the syntactic structure of double genitive is based on movement. He discusses the structures of double genitive phrases with quantifiers (*two pictures of John's*). According to Kayne double genitive has a d-structure similar to prenominal genitive phrase (*John's two books*) which is by movement realized at s-structure as double genitive.

Unlike in Barker's (1998) hypothesis but similarly with Abney (1987), Kayne assumes the existence of AgrP in NP. The morpheme 's originates in Agr<sup>0</sup> position. Agr<sup>0</sup> chooses QP/NP to be its Complement, but it cannot Case-license DP in Spec, so D<sup>0</sup> node is part of the construction as landing site for preposition *of*. The corresponding d-structure of both prenominal possessive and double genitive is in (100).

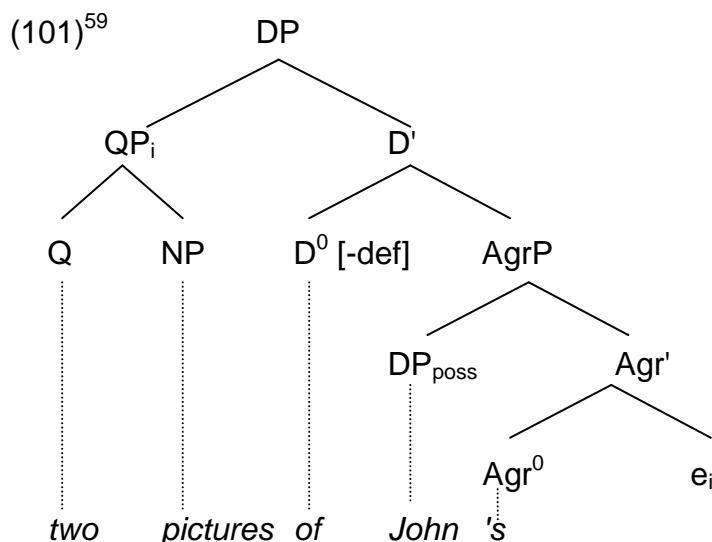
(100) [<sub>DP</sub> Spec D<sup>0</sup> [John['s[<sub>QP</sub> two pictures]]]]]

Kayne assumes that which construction of the two will be realized depends on definiteness of the phrase. Prenominal possessive is realized as result of

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<sup>58</sup> Interpretation of this construction will be considered in more detail in section 6.3.

definiteness choice, the double genitive as indefiniteness choice. The obligatory movement is interpreted in terms of Case. "The definite D<sup>0</sup> plays a role in the Case-licensing of the possessor (*John*) [...]. However, indefinite D<sup>0</sup> is not a Case licenser" (Kayne 85, 1994). The syntactic structure of a realized double genitive is in (101).



Kayne's (1994) syntactic analysis of double genitives although it not simple at all, seems to be most consistent with the data presented above. It is applicable to all three types of double genitive, the indefinite, the definite and the demonstrative. Moreover, it explains the definite interpretation of prenominal possessives opposed to indefinite interpretation of the respective subtype of double genitive.

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<sup>59</sup> Symbol "e" shows the position of the moved constituent at d-structure, e is co-indexed with the moved element.

## 6. Semantic Structure

This section introduces the general theory of argument structure and semantic roles of Vs and derived nominals. The theory is used to discuss in more detail the interpretation of genitives in terms of semantic roles.<sup>60</sup>

As exemplified in section 4.2 dealing with the X-bar theory, the similarity between NP and VP is valid from the perspective of syntactic structure. In the following section I determine whether it is plausible to apply Fillmore's hierarchy of semantic roles to a noun phrase as well, concentrating on the roles of genitive construction in English.

### 6.1. Argument Structure of Verbs and Derived Nominals

The argument structure and thematic roles are concepts traditionally employed with respect to VPs. A verb is a crucial component of a sentence. The composition of a sentence depends on the verb and its subcategorization. Each verb has a specific subcategorization/c-selection frame of argument structure. It means that V contains this argument structure and it needs to be filled with the required arguments in order to be grammatical in a sentence. A verb might select for one or more arguments. In (102) the verb *build* subcategorizes for one internal argument and takes one external argument, both realized as NPs.

(102) Jim built a house.

1            2

build [-NP]; <agent, goal>

Argument 1 precedes the verb and its syntactic function is the subject of the sentence. Argument 2 is a Complement of the verb. As it is clear, argument structure is closely related to the meaning of the verb.

The area closely related with hierarchical syntactic structure of VPs (subcategorization/c-selection) is the selection of semantic roles, s-selection. In (102), argument 1 denotes the doer of the activity, it is the Agent. Argument 2 is the goal of the activity. Semantic roles refer to the different roles attributed to an

<sup>60</sup> Semantic roles in sense of Grimshaw (1991), are optional, dealing with semantic interpretation of related constituents, e.g. possessors of nouns. As opposed to obligatory thematic roles associated with argument positions of verbs.

argument. There are many different semantic roles labels, from syntactic point of view, Agentative roles, typically external arguments are termed A1, thematic roles, typically internal arguments are referred to as A2<sup>61</sup>. In generative framework which separates syntactic structure and lexicon, A1 refers to external argument (subject) and A2 to internal argument (Complement).

The argument structure of verbs is applied to derived nominal, as well. In (103) the interpretation of the two phrases is similar and it is ascribed to the similar underlying argument structure and semantic roles of the verb and the derived nominal. The questions whether "a) [...] nouns 'inherit' the argument structure of their source verbs and b) If they do, how does this inheritance process take place" (Alexiadou, Haegeman, Sravrou 2007, 480) remain to be unsolved and discussed. However, the corresponding argument structure and semantic roles of the phrases in (103) are generally accepted.

- (103) a. *Ceasar's destruction of the city*  
b. *Ceasar destroyed the city*

With derived nominals such as *destruction* pre-modified by a possessor and post-modified by an *of*-phrase the semantic roles of arguments seem to correspond to the verbal ones: *Ceasar* is the Agent of the action, the *city* is the Theme.

Although s-selection applies for both VP and NP it is not the same. The crucial difference is the fact that a verb needs to realize its argument structure in order to be grammatical in a sentence, nouns do not have any obligatory arguments complementing them. A derived nominal has the optional property of taking arguments, but they do not have to be realized in a sentence.

It is plausible to talk about correspondence between verbs and derived nominals but is there such a correspondence between any other group of nouns and verbs? Alexiadou, Haegeman and Stavrou claim there is not, at least not between argument structure of verbs and nouns. They differentiate between relational (inalienable possession) and absolute (alienable possession) nouns. "Relational nouns have an inherent relation to the nominal constituent that

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<sup>61</sup> This differentiation applies to prototypical declarative, active clauses.

accompany them [...]." (Alexiadou, Haegeman, Stavrou 2007, 477). Apart from derived nominals, kinship nouns (*John's sister*) and nouns with inherent part-whole relations (*the chair's legs*) belong to relational nouns category. With absolute nouns, typically alienable possession nouns *Kelly's box*, the relation is not inherent. With these classes of nouns it is not possible to talk about argument structure but there is a relation between the possessor and the head noun.<sup>62</sup>

## 6.2. Semantic Roles (Interpretation of Genitive)

It is generally agreed that unlike verbs, nouns do not have argument structure<sup>63</sup>, i.e. one or more syntactic position for lexical constituents **obligatorily** co-occurring with a noun in a sentence. However, similarly as with verbs it is possible to semantically interpret possessors related to nouns. The positions which are my concern here, are possessor (N2) positions of prenominal genitive (104)a., genitive of-phrase (104)b. and double genitive (104)c.

- (104) a. ***John's book***
- b. ***book of John***
- c. ***book of John's***

Fillmore (1968) suggests that there is a structurally derivable universal hierarchy of thematic roles<sup>64</sup> for verbs. Syntactic constituents (subject, direct object and indirect object) sitting in the structural positions are associated with thematic roles. Syntactically higher constituents correspond to higher semantic roles: subject positions correspond with Agents, direct object positions with Themes and indirect object positions with Goals. Not the specific interpretation of a semantic role is important, but the hierarchical correspondence.

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<sup>62</sup> Chomsky (1986b) calls the relation between genitive to the head noun relation R. It is a semantic relation, but a specific semantic role is not associated with it.

<sup>63</sup> Derived nominals as an exception are discussed above. In particular complex events nominals, a subclass of derived nominals have argument structure argues Grimshaw (1991).

<sup>64</sup> Fillmore (1968) calls thematic roles cases.

According to Veselovská (1998, 2012) there are parallels between verbal and nominal semantic roles<sup>65</sup> and thus it could be possible to determine semantic roles hierarchy for interpretation of DPs.

To give the most typical interpretative meanings of POSS<sup>66</sup> (similar to verbal semantic roles), I provide Veselovská's list of semantic roles of POSS for English (inspired by Grimshaw 1991) in Table 5 in (105).

(105)

Semantic Role of Possessive	Example
a. ownership	<i>my table</i>
b. the person or thing to which the "possessed" stands in the designated relationship	<i>my mother, his ancestor, your colleagues, our boss</i>
c. the person or thing of which the "possessed" is a part	<i>my leg, the building's walls, my personality</i>
d. a person or thing affiliated with or identifying with the "possessed"	<i>his country, our class, my people, their enemy, my counterpart</i>
e. the performer, semantic roles similar to verbal valency or sometimes the undergoer, of an action	<i>his arrival, the government's overthrow</i>
f. the creator, supervisor, user, etc. of the "possessed"	<i>Prince's album, the Irish jockey's horse, designer's plan</i>

**Table 5:** Semantic roles of prenominal possessives

However, there is a very wide range of possible interpretation of relations between the possessor and the head noun. Williamson (1981, 89)<sup>67</sup> points out that context allows many various interpretations, as in (106). While the most straightforward interpretation of (106)a. is in (106)b., (106)c.-f. are all possible interpretations. Moreover, these interpretations do not fall under the traditional label of thematic/semantic roles.

<sup>65</sup> The author supports her argument by Chomsky (1977), Grimshaw (1991), Karlík (2000).

<sup>66</sup> In the paper term possessive (POSS) is used for prenominal possessive and genitive (GEN) for postnominal of-genitive.

<sup>67</sup> On behalf of Alexiadou, Haegeman, Sravrou (2007).

- (106) a. *John's car*  
 b. *the car that John owns*  
 c. *the car that John is renting*  
 d. *the car that John has to paint*  
 e. *the car that John has to find*  
 f. *the car that John prefers*

Alexiadou, Haegeman, Sravrou (2007, 556)

Veselovská (2012) refers to Karlík (2000), who analyzed valency and complementation of Czech derived nominals. He proves that in Czech the valency<sup>68</sup> of verbs and nouns is closely related, as in (107).

- (107) a. *Petr<sub>NOM</sub> namaloval Eve<sub>ACC</sub>.* (verbal valency)  
*Peter<sub>NOM</sub> painted Eve<sub>ACC</sub>.*  
 b. *Petrův<sub>POSS</sub> obraz Eve<sub>GEN</sub>.* (nominal valency)  
*Peter's<sub>POSS</sub> picture of Eve<sub>GEN</sub>.*

In (107)a. the highest, external argument (A1), the Agent of the verb bears nominative; the POSS in the corresponding NP in (107)b. has the same reading and it is highest role in the phrase. The internal argument (A2) of the verb in (107)a. marked with structural Accusative is located in a Complement position adjacent to the head, same as GEN in NP in (107)b.

Conceptually the semantic roles hierarchy is valid in both VP and DP, even though there are differences in obligatoriness and ambiguity of interpretation with semantic roles in VP and DP.

When considering the POSS (or GEN) of a noun as the only argument it is not obligatory (unlike verbal arguments) and its interpretation is ambiguous, as demonstrated in (106). Veselovská tests this hierarchy of semantic roles in NP in English. In (108)a. and b. it is possible to interpret both Peter and Eva as A1 (Creator) or A2 (Theme).

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<sup>68</sup> Valency is a concept used in Czech instead of c-selection and s-selection frame.

- (108) a. *Peter's/Eve's<sub>A1/A2</sub> picture*  
 b. *a picture of Peter/Eve<sub>A1/A2</sub>*

She observes that ambiguous reading of POSS or GEN is avoided by several strategies. When both POSS and GEN co-occur in a single phrase, then POSS is interpreted as higher semantic role and GEN as the lower one, (109). Usage of the preposition *by* also avoid ambiguity and straightforward Agentive (A1) interpretation of *by*-phrase is forced, in (110), (Veselovská 2012, 4). In (111) it is important to differentiate another hierarchical position in DP, a possessor (POS).<sup>69</sup> In (111) the three positions for semantic roles in DP co-occur: POS, A1, A2.

- (109) *Peter's<sub>A1</sub> picture of Eve<sub>A2</sub>.*  
 (110) *Peter's<sub>POS/A2</sub> picture by Eve<sub>A1</sub>.*  
 (111) *Peter's<sub>POS</sub> picture of Eve<sub>A2</sub> by Dalí<sub>A1</sub>.* (Veselovská 2012, 4)

As Veselovská points out, Fillmore's universal semantic hierarchy for verbs is confirmed for nouns, as well (Veselovská 2012, 3-4).

To summarize, there are three hierarchically ordered positions for semantic roles for in English DP: POS, A1, A2. The hierarchical order of syntactic positions is as follows: POSS is the highest one, the PP position (*by*-phrase) is below, the Complements is lowest position.

With respect to double genitive, Veselovská (2012, 6) argues that " [...] the position 'lower' in a hierarchy is used in case the highest one is formally inaccessible." In other words if there is some formal reason which avoids POSS to occur in the prenominal position<sup>70</sup> it is forced to occur postnominally in of-GEN (double genitive). The generally accepted schema of determination field consists of three slots - predetermination, central determination and post-determination (Quirk et al. 1985). Possessives belong to the central determiners category which is unique and obligatory in the NP structure in English. Therefore either article or demonstrative or possessive can occur in this

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<sup>69</sup> Possessor as semantic role is abbreviated as POS to be differentiated from syntactic position of possessor (POSS).

<sup>70</sup> E.g. indefinite article in D.

position. For article nor demonstrative it is not possible to appear in any other than prenominal position thus if there is a need for it to occur, it has to be in the prenominal determiner position and the possessive has to appear in postnominal position as double genitive as in (113)a. and b.

- (112) a. *my friend* (definite reference)
  - b. *Jim's picture*
- (113) a. *a friend of mine* (indefinite reference)
  - b. *a picture of Jim's*

### 6.3. Interpretation of Double Genitives

The interpretation of double genitive and its semantic roles is not consistently described in literature. The goal of this section is to devise a hierarchical order of semantic roles positions for double genitive, similarly as Fillmore did for VP and Veselovská proved for English NP with POSS and GEN.

I will analyze the most frequent double genitives containing nouns which have two or more realizable semantic roles. Using examples from Barker (1998)<sup>71</sup>, I will analyze possible co-occurrence and order of combinations of prenominal genitives, *of*-phrases and double genitives in one NP.

The interpretation of semantic roles of double genitives is ambiguous, similarly as with POSS and GEN, if it is the only genitive in a phrase and if N1 has more than one realizable semantic role.

The most frequently used double genitive phrase<sup>72</sup> with *friend* N1 as in (113)a. has potential to relate with only one semantic role position. Such phrases have unambiguous reading. It is a relational noun with a single slot for a semantic role, it cannot take any more related nouns. *My* in (112)a. and *mine* in (113)a. are interpreted as POS.

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<sup>71</sup> Barker (1998) provides interpretation of semantic roles of double genitives. I will use those to determine if there is a hierarchical order of positions of semantic roles in double genitive.

<sup>72</sup> Construction *a friend of N* is most frequently used according to Biber (1999) and according to my corpus search, as well.

To take N1 with more realizable semantic roles, I will now consider (112)b. and (113)b. Interpretation of POSS *Jim's* in (112)b. is ambiguous, it could be POS, A1 or A2. With corresponding *of*-phrase in (114), the acceptable interpretation of *John* is A1 or A2. *John* can't be possessor of the picture, the A1 reading is possible but semantic role of creator in post-modification of N1 is more typically expressed by *by*-phrase.

- (114) *a picture of Jim<sub>A1/A2</sub>*

With respect to interpretation of (113)b, Kayne's (1994) syntactic analysis should predict that double genitive will have the interpretation corresponding to interpretation of POSS. With double genitive the possible interpretation is narrower than the interpretation of POSS when it is the only genitive constituent in a phrase. There is not complete accordance with the corresponding prenominal POSS: *Jim's* in (113)b. can be interpreted as A1 or POS but the interpretation of *Jim's* as A2 is excluded. The position in post-modification of a noun narrows the interpretation:

- (115) *a picture of Jim's<sub>POS/A1</sub>*

In (116), which is a corpus example, *Terry's* is interpreted as A1, as it is obvious from the context of the sentence.

- (116) '***This story of Terry's<sub>A1</sub>*** about going after your father to ask him for a loan to buy a small-holding -- what do you make of that?' (BNC: HWP 1)

In (117) another corpus example, *Connon's* is interpreted as POS.

- (117) *I be good company for ***that kid of Connon's<sub>POS</sub>***.* (BNC: GUD 1)

The next point of the analysis is the co-occurrence of prenominal POSS and double genitive. The combination is acceptable, as is illustrated in (118). With respect to the above analysis, there are two expectable readings of the phrase:

reading of POSS when co-occurring with GEN is A1/POS; reading of double genitive when it occurs without any other genitive constituents in a phrase is A1/POS. That means there should be one preferred reading if the two genitives occur together. Baker suggests *Mary's* is interpreted as POS, of *John's* as A1 (*Mary* owns the picture *John* made.) This reading was confirmed by another native speaker. It is most clear in examples such as (119).

- (118) *Mary's<sub>POS</sub>* *picture of John's<sub>A1</sub>*.
- (119) *Mary's<sub>POS</sub>* *most recently purchased book of John's<sub>A1</sub>*.

Barker (1998) compares interpretation of (118) with several phrases of the same format, in (120). He points out that the interpretative reading is specific for each phrase depending on the N1. For my purposes, the reading is the same for each phrase, i.e. the position of POSS is interpreted as POS and the double genitive position as A1.

- (120) a. *Mary's<sub>POS</sub>* *book of John's<sub>A1</sub>*
- b. *my<sub>POS</sub>* *favourite story of yours<sub>A1</sub>*
- c. *Mary's<sub>POS</sub>* *invention of John's<sub>A1</sub>*
- d. *Mary's<sub>POS</sub>* *sculpture of John's<sub>A1</sub>*

Barker explains the unacceptability of phrases such as (121), as well. He states that if the N1 supports only POS relation with its POSS, co-occurrence with A1/A2 is not acceptable. I formulated this restriction as the "potential of N1 to relate with only one semantic role position" (with respect to a phrase containing *friend* as N1).

- (121) a. \**Mary's son of John's*
- b. \**Mary's son of John*

This analysis proves that the hierarchical order of positions of semantic roles applies also with respect to double genitives. The structurally highest position of POSS is realized by semantic role POS/A1, adjacent Complement of a noun is

realized as A2. If both POS and A1 semantic roles are realized, POSS position is occupied by POS and A1 is realized in a position of PP-Adjunct which is intermediate between POSS and Complement positions.

Kayne's movement analysis (1994) of syntactic structure of double genitive is supported by example (115), (116), (117). However, if POSS and double genitive co-occur, this analysis fails to account for it. PP-Adjunct analysis proves to be more adequate for this kind of double genitive constructions.

The summary is in table Table 6 in (122) and Table 7 in (123).

(122)

Type of Genitive	Example	Semantic Role
double genitive	<i>a picture of John's</i>	A1/POS
prenominal genitive + genitive of-phrase	<i>Mary's picture of John</i>	POSS/A1 ____ A2
double genitive + genitive of-phrase	<i>a picture of Mary of John's</i>	A2 _ A1/POS
prenominal genitive + double genitive	<i>Mary's picture of John's</i>	POS ____ A1

**Table 6:** Semantic roles which prenominal genitive, genitive of-phrase and double genitive can carry.

(123)

Semantic role	Syntactic position
POS	POSS (prenominal genitive); ADJ (double genitive)
A1	POSS (prenominal genitive); ADJ (double genitive)
A2	COMP (genitive of-phrase)

**Table 7:** Hierarchical order of syntactic positions and semantic roles (if two constructions co-occur).

## 7. Conclusion

The objective of this thesis has been to provide complex description of the format of double genitive, analyse of the syntactic structure of the construction and determine the most accurate one and interpret the double genitive in terms of semantic roles it can carry.

The double genitive is as special construction because it contains both genitive markers available in English: the 's clitic which is attached to N2 and prepositional *of*-phrase post-modifying N1.

The first part of this paper has focused on description of prenominal genitive, genitive *of*-phrase and comparison with the double genitive. The comparison proved that double genitive is a subclass of prenominal genitive construction. Characteristics of the double genitive are summarized in Table 4 repeated here as Table 8 in (124).

(124)

Determination field	Pre-modification field	Head Noun (N1)	of N2's	Post-modification field
Det [+/- Def]	A	N1	of N2's [+Def, +HUMAN]	relative clause
a	∅	<i>book/father</i>	of John's/mine	∅
the	(nice)	<i>book</i>	of John's/mine	<i>that you read</i>
the	(good)	<i>friend</i>	of John's/mine	<i>who we met</i>
this/that	(nice)	<i>book</i>	of John's/mine	( <i>that you read</i> )
this/that	(old)	<i>father</i>	of John's/mine	( <i>who lives in Bath</i> )

**Table 8:** Characteristics of the double genitive

Both N1 and N2 in the double genitive are semantically less general than the respective constituents in prenominal genitive: the semantic restriction on N1 is not clearly determined in the literature (nor was I able to determine it from the corpus findings). It is a subject for future research.

The semantic restriction on N2 is clearly defined: it has to be definite [+Def] and [+HUMAN] in the double genitive. With respect to pre-modification of N1, there are three types: the indefinite (*a book of John's*), the definite (*the book of*

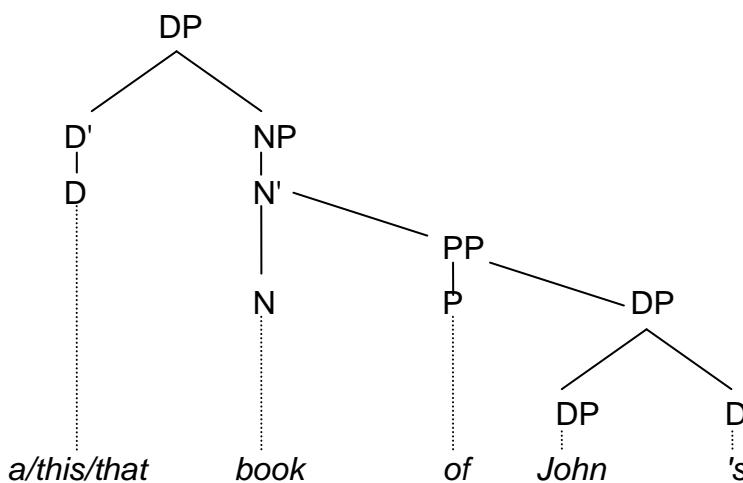
*John's*) and the demonstrative (*that book of John's*). With the definite subtype there is obligatory post-modification by relative clause.

Generally the double genitive does not compete with genitive *of*-phrase because *of*-phrase is preferred with inanimate concrete N2s and the N2 in double genitive is always animate and [+HUMAN] (majority of N2s being personal nouns or possessive pronouns).

The second objective of this paper has been to provide possible analysis of syntactic structure of double genitive in comparison with prenominal possessive and genitive *of*-phrase constructions in terms of the X-bar theory and determine the one which is most accurate with respect to the defined format of the double genitive.

Firstly, NP and VP parallelism was established (in both pre- and post-modification) and on this basis several options of possible double genitive syntactic structures were examined: the Adjunct analysis, Jackendoff's PRO analysis, Barker's partitive analysis and Kayne's movement analysis. The Adjunct analysis proved to be most plausible, considering the capability to explain all three subtypes of double genitive. Under this approach N2 is analyzed as Adjunct. The tree structure representation is in (125).

(125)



The third part of this study has concentrated on the interpretation of double genitives and the semantic roles it can carry. Nouns do not have argument structure as verbs, however, there are semantic relations between possessors, and their heads. Fillmore's (1968) observation states that with verbs, there is a

hierarchy of structural position corresponding with particular thematic roles. Veselovská (1998) and Karlík (2000) attested this theory with respect to Czech NP and Veselovská (2012) confirmed it on English NP. Based on these works I implemented this analysis on the double genitive construction in English.

The interpretation analysis proved this theory is applicable to double genitives, as well: hierarchically higher positions do correspond with higher semantic roles. The overview is in Table 9 in (126).

(126)

Semantic role	Syntactic position
POS	POSS (prenominal genitive); ADJ (double genitive)
A1	POSS (prenominal genitive); ADJ (double genitive)
A2	COMP (genitive <i>of</i> -phrase)

**Table 9:** Hierarchical order of syntactic positions and semantic roles (if two constructions co-occur).

The findings in the area of interpretation of double genitives supported the conclusions made in the two previous parts: genitive *of*-phrase does not compete with double genitive because structural position and interpretation of the N2 constituents differs: whereas N2 in genitive *of*-phrase occupies complement position, N2 in double genitive most probably sits in Adjunct position. Semantic role of N2 in genitive *of*-phrase is interpreted as A2, N2 in double genitive is interpreted as A1 or POSS.

## 8. Appendix: Corpus Data Collection of Double Genitives

This is my supportive corpus of examples of double genitives collected in BNC. It is organized as follows. Double genitives are divided to three categories: the indefinite, the definite and the demonstrative<sup>73</sup>. Each group is further subcategorized to phrases containing post-modification by a noun and by a possessive pronoun. With the latter group I do not provide full citation in a sentence as these phrases are very general.<sup>74</sup>

### I. Indefinite Double Genitive, Post-modification by a Noun

1. *Think about it. You could say you were a friend of Billy's and --" Bye-bye.'*  
(BNC: HTL 2)
2. *Gottfried von Jacquin, son of the famous botanist Baron von Jacquin and a pupil of Mozart's , for whom Mozart wrote several nocturnos and some vocal pieces: and a group of expatriate English and Irish musicians.*  
(BNC: CEW 1)
3. *We caught up with her on Thursday evening at a' Democracy Day' debate, an articulate platform shared by two of the three other candidates and chaired, admirably, by the Rev Ben de la Mare who's a descendant of Walter's.* (BNC: K55 1)
4. *He rather took to Bunny, but it was obvious the stage-manager was a crony of Potter's and it was advisable, this early on, to leave well alone.* (BNC: FNU 1)
5. *The edition of Boswell's Tour now generally available only refers obliquely to a lack of warmth, and to Boswell's own' spleen' while staying there -- all this*

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<sup>73</sup> This division is due to Abel (2006).

<sup>74</sup> For usage based corpus analysis of "HEAD + of mine" construction see Payne (2009).

*notwithstanding that the beautiful (and pregnant) Lady Macdonald was a cousin of Boswell's.* (BNC: G1Y 1)

6. *He used his influence to favour a contemporary of Keeton's, of comparable mettle, but more predictable in terms of the expectations of a liberal-conservative establishment.* (BNC: A2Y 1)
7. *Smart had always attracted friends, and they served him well now, securing him the necessary recommendation to St Luke's by a bookseller, perhaps a connection of Newbery's, who had become a banker, probably one of the bankers who formed a majority of the Governors of St Luke's.* (BNC: CFX 1)
8. *There is on record a confession of Cobden-Sanderson's, who said of a failure to bind a copy of Tennyson's In Memoriam to his satisfaction: 'I could spit upon the book, throw it out of the window, into the fire, upon the ground and grind it with my heel.'* (BNC: CCB 1)
9. *At any rate, they could see that Zacco, not Carlotta, was going to hold Cyprus; and that they must treat a commander of Zacco's with care.* (BNC: BP0 1)
10. *I've just sold a comedy of Philip's about air travel,' she said.'* (BNC: FSP 1)
11. *It was Harold F. Brooks, a colleague of Hardy's at Birkbeck College, who contributed to the debate on English studies at Cambridge [...]* (BNC: EWR 1)
12. *A celebrated writer of fairy stories, Perrault was also a collaborator of Colbert's , and the man who prevented Bernini from realising his projected faade for the Louvre.* (BNC: CKY 1)

13. *What the' teacher' volunteer did not know was that the whole experiment was a set-up and that the' learner'was in fact a co-worker of Milgram's.* (BNC: CMF 1)
14. *Earl, a classmate of North's from the Naval Academy, was privy to quite a lot, including the diversion.* (BNC: ADL 1)
15. *A chum of Annabel's says fondly:' It's hardly surprising -- she is not renowned for her attention span.'* (BNC: AKD 1)
16. *At the opening of the novel he is a cell-mate of Cavaletto's in Marseilles prison awaiting trial for the murder of his wife.* (BNC: B0Y 1)
17. *'We were just talking about a case of Camille's.'* (BNC: FNT 1)
18. *Aren't you having a bun of mummy's now?* (BNC: KBW 1)
19. *Tindle never became a boyfriend of Minton's but once, when he stayed the night at Hamilton Terrace [...]* (BNC: F9U 1)
20. *'No, Gilbert, I don't know anything about a box of Amy's.* (BNC: HA2 1)
21. *Erm, er, generally people in that position, and and it it was a a weakness of Edward's.* (BNC: KGP 1)
22. *It recalled something I'd seen long ago in a wild-life programme about # one of those grim, antiquatedly-armoured species # for whom the sexual act, through a whim of nature's, has been made almost impossible to carry out.* (BNC: C8X 1)
23. *Obviously I don't want a wife of Peter's around the place if she's not going to behave in a civil manner to me.* (BNC: JXU 1)

24. 'Oh, yes,' she had said, in answer to **a remark of Alice's**, 'we sure are quiet here.' (BNC: HA0 1)
25. *She died in 1729, and in 1731 he married Elizabeth (died 1744), daughter of Sir Philip Jackson of Pontrilas, Herefordshire, who was evidently a relative of Mary's.* (BNC: GT3 1)
26. [...] *I'd taken him out for a walk to make sure he'd had his walk and Mike didn't get up till gone half two and when he come down he'd cut a report of Lisa's on the floor.* (BNC: KCG 1)
27. *A boyfriend hooked her on drugs, and that boyfriend was a room-mate of Rickie's.* (BNC: CCW 1)
28. [...] *a dangerous escaped convict now roaming' our town' and originally a serf of Stepan's whom he sold into military service to pay a gambling debt: If you had not lost him at cards, would he have got into prison?* (BNC: A18 1)
29. **A sister of Rose's** sobbed briefly. (BNC: A6N 1)
30. *In fact the two men may have met sooner; a sketchbook of Picasso's which he filled with drawings in the early spring of that year contains some short written entries which mention Braque twice.* (BNC: GUJ 1)
31. *The pair in fact decided to work together after Merton added a joke to a skit of Clary's a few years ago: a man is returning from a holiday in Morocco, and is stopped and questioned by Moroccan customs.'* (BNC: CD5 1)
32. [...] *on behalf of Mr. Charles Duncan, a son of Ardownie's , who's now a foremasthand aboard the Royal Sovereign his Majesty's Ship lying at Chatham...* (BNC: CRR 1)

33. *The Vicar's fault is weakness, and the analysis and censure of weakness is a speciality of Crabbe's*. (BNC: J55 1)
34. *The audiences of working men who acclaimed Joseph Chamberlain were not just afraid for their jobs, though the fear of German competition was real enough -- the three men, in a speech of Chamberlain's, unloading trucks containing German wire, who remarked' this is rather hard: we used to make this'*. (BNC: A69 1)
35. *And Scano's son is a friend of your son's.* (BNC: CJX 2)
36. *Starting in one corner, Helen began to lift garments from pegs and drop them on the floor in a pile -- a mack of her father's, something of Edward's not worn within living memory, [...]* (BNC: G0Y 1)
37. *He's a mate of my husband's.* (BNC: BN1 1)
38. *We learned later that the traitor was a neighbour of my father's.* (BNC: H89 1)
39. *She had seen a lot of Japanese kaiju eiga flatties as a child thanks to a quirk of her father's, [...]* (BNC: GVL 1)
40. *'It's a recipe of my grandmother's.* (BNC: G04 1)
41. *Daniel adeptly and too obviously converted a reminiscence of his Mum's about a joint of pork she had once cooked into a general conversation about [...]* (BNC: FET 1)
42. *Peony preferred to be regarded for herself and not just as a stamp of her mother's, for her mother was beautiful, but Peony knew that [...]* (BNC: H9G 1)

43. [...] that's **a brother of my father's**, he was up here one Sunday [...] (BNC: GYT 1)
44. [...] the other **a colleague of his brother's**: neither of the men he'd wished to know better. (BNC: CRE 1)
45. Referring to **a comrade of her son's**, she wrote: [...] (BNC: AMC 1)
46. Mary Donovan is **a cousin of my father's!** (BNC: CDY 1)
47. She found **a diary of her brother's**. (BNC: GUU 1)
48. It is a biblical saying and **a favourite of my father's**. (BNC: BMM 1)
49. [...] explaining to his colleagues and superiors, with a wry smile, that Constance was **a friend of his wife's**: [...] (BNC: G1D 1)
50. 'He was **a friend of my grandmother's**', said Camille. (BNC: G1D 1)
51. '**A friend of my stepsister's**, actually.' (BNC: HHA 1)
52. '**A friend of your daughter's** gave us to understand that you lived in Michigan.' (BNC: CJX 1)
53. 'This is **a fine house of my son 's**, sir,' cried the old man, nodding back at me.' (BNC: FPU 1)
54. **Some words of Foucard's** churned in her mind: 'I shall see you again [...] (BNC: GV2 1)
55. She was sure this was **some trick of Zuleika's** to get her off-balance, slow down her reaction time. (BNC: FP0 1)

56. Now, would you like to borrow **some stuff of George's?**' (BNC: H86 1)
57. I never did find out if this was in fact **some relation of Boy's**, his Grandfather perhaps, or whether the resemblance between the now-dead soldier and Boy was merely a coincidence. (BNC: AR2 1)
58. I realized that they were talking about **some poems of Emily's**. (BNC: FNY 29)
59. Instead, they were now proposing that the poem should appear, 'with **some pieces of William's**', in a volume of its own. (BNC: B0R 28)
60. They met **some girlfriends of Jessica's**, and ended up having cakes and coffee and a laugh [...] (BNC: FNY 1)
61. Guillaume had already bought **some drawings of Modigliani's**, but one afternoon at the Rotonde Max Jacob [...] (BNC: ANF 16)
62. Or **some chum of Matt's** put it there to make him feel at home. (BNC: G1X 12)
63. **Some cousin of Lilian 's** two or three times removed had found them in Florence while [...] (BNC:CDB 14)
64. 'There was a danger that **allies of Siward's** might approach him from the south-west. (BNC: HRC 1)
65. I heard just recently that **a first cousin of mine** was destroyed in the Battle of the Lesser Sack.' (BNC: HA0 2)
66. A laugh from the CARDINAL and the FOX at **some witticism of Pamela's**. (BNC: FU4 37)

67. *Tawny Owl can be so pale that unfeathered **toes of Hume** 's are only really good distinction [...]* (BNC: GUA 1)

## **II. Indefinite Double Genitive, Post-modification by a Pronoun**

1. *What can **a piece of mine** do for an audience that has really come to enjoy one of the great operatic [...]* (BNC: EDG 165)
2. *[...] to have standing, that the public law wrong has invaded **some legal right of his or hers**, recognized in private law, or has caused him or her some [...]* (BNC:EBM 5)
  

3.	<i>a friend of hers</i>	23.	<i>a pain of yours</i>
4.	<i>some friends of mine</i>	24.	<i>a painting of his</i>
5.	<i>a constituent of mine</i>	25.	<i>a pair of yours</i>
6.	<i>a cousin of mine</i>	26.	<i>a ring of yours</i>
7.	<i>a favourite of mine</i>	27.	<i>a schoolfriend of mine</i>
8.	<i>a mate of mine</i>	28.	<i>a sermon of his</i>
9.	<i>a pal of mine who</i>	29.	<i>a servant of his</i>
10.	<i>a neighbour of mine</i>	30.	<i>a servant of yours</i>
11.	<i>some neighbours of ours</i>	31.	<i>a sister-in-law of mine</i>
12.	<i>some relation of hers</i>	32.	<i>a son of hers</i>
13.	<i>some relatives of ours</i>	33.	<i>a speciality of hers</i>
14.	<i>some servant of his</i>	34.	<i>a story of his</i>
15.	<i>some tapes of mine</i>	35.	<i>a strength of his</i>
16.	<i>some things of hers</i>	36.	<i>a student of his</i>
17.	<i>some words of his</i>	37.	<i>a subsource of his</i>
18.	<i>a member of ours</i>	38.	<i>a superstition of mine</i>
19.	<i>a mind of his</i>	39.	<i>a supporter of ours</i>
20.	<i>a niece of hers</i>	40.	<i>a t-shirt of mine</i>
21.	<i>a note of yours</i>	41.	<i>a team-mate of mine</i>
22.	<i>a novel of his</i>	42.	<i>a tenant of ours</i>

- |     |                               |      |                                 |
|-----|-------------------------------|------|---------------------------------|
| 43. | <i>a test of his</i>          | 76.  | <i>a letter of his</i>          |
| 44. | <i>a textbook of hers</i>     | 77.  | <i>a liability of his</i>       |
| 45. | <i>a thing of his</i>         | 78.  | <i>a lodger of mine</i>         |
| 46. | <i>a tortoise of ours g</i>   | 79.  | <i>a lover of his</i>           |
| 47. | <i>a trait of yours</i>       | 80.  | <i>a man of mine</i>            |
| 48. | <i>a trick of his</i>         | 81.  | <i>a feeling of mine</i>        |
| 49. | <i>few remarks of mine</i>    | 82.  | <i>a follower of mine</i>       |
| 50. | <i>few words of mine</i>      | 83.  | <i>a contemporary of theirs</i> |
| 51. | <i>some act of his</i>        | 84.  | <i>a creature of his</i>        |
| 52. | <i>some ancestor of his</i>   | 85.  | <i>a customer of his</i>        |
| 53. | <i>some flunkey of his</i>    | 86.  | <i>a daughter of mine</i>       |
| 54. | <i>a paper of ours</i>        | 87.  | <i>a decision of his</i>        |
| 55. | <i>a passion of hers</i>      | 88.  | <i>a desire of his</i>          |
| 56. | <i>a picture of yours</i>     | 89.  | <i>a dramatisation of his</i>   |
| 57. | <i>a play of his</i>          | 90.  | <i>a drawing of his</i>         |
| 58. | <i>a poem of his</i>          | 91.  | <i>a dream of mine</i>          |
| 59. | <i>a portion of hers</i>      | 92.  | <i>a family of his</i>          |
| 60. | <i>a practice of mine</i>     | 93.  | <i>a fan of his</i>             |
| 61. | <i>a preoccupation of his</i> | 94.  | <i>a fashion of his</i>         |
| 62. | <i>a recording of his</i>     | 95.  | <i>a father of yours</i>        |
| 63. | <i>a relation of ours</i>     | 96.  | <i>a fault of his</i>           |
| 64. | <i>a relative of yours</i>    | 97.  | <i>a compatriot of yours</i>    |
| 65. | <i>a request of mine</i>      | 98.  | <i>a competitor of ours</i>     |
| 66. | <i>a function of his</i>      | 99.  | <i>a concert of theirs</i>      |
| 67. | <i>a gift of his</i>          | 100. | <i>a congregation of his</i>    |
| 68. | <i>a girl of yours</i>        | 101. | <i>a consideration of yours</i> |
| 69. | <i>a girlfriend of mine</i>   | 102. | <i>a book of mine</i>           |
| 70. | <i>a grandfather of mine</i>  | 103. | <i>a buddy of mine</i>          |
| 71. | <i>a guest of mine</i>        | 104. | <i>a butty of mine</i>          |
| 72. | <i>a habit of hers</i>        | 105. | <i>a characteristic of hers</i> |
| 73. | <i>a hand of mine</i>         | 106. | <i>a child of theirs</i>        |
| 74. | <i>a hobby of theirs</i>      | 107. | <i>a chum of his</i>            |
| 75. | <i>a kinsman of mine</i>      | 108. | <i>a class of mine</i>          |

- |                                   |                                |
|-----------------------------------|--------------------------------|
| 109. <i>a classmate of mine</i>   | 112. <i>a colleague of his</i> |
| 110. <i>a constituent of mine</i> | 113. <i>a client of yours</i>  |
| 111. <i>a cold of yours</i>       |                                |

### **III. Definite Double Genitive, Post-modification by a Noun**

1. [...] and Charles was in an increasingly pessimistic mood about **the future of Chester's.** (BNC: JY3 1)
2. As is well brought out in a recent paper, **the views of Carnap's** which Quine opposed involved the claim that conventionally adopted analytic linguistic frameworks provided criteria [...] (BNC: CM2 1)
3. [...] **the terms of Freud's** which correspond to those are not or observed Latinisms like that. (BNC: HUM 1)
4. Blanche tiptoed over and remembered the face from **the photograph of Tatyana's** that she had borrowed. (BNC: G15 1)
5. It lay over there with the gold helm made in Germany to replace **the helm of Canute's** that had blown in pearls to the wind, beading the ashes of his forebears' great hall at Orphir. (BNC: HRC 1)

### **IV. Definite Double Genitive, Post-modification by a Pronoun**

1. **The book of hers** that stayed with Pound was Private Worlds, which he reviewed in the New English [...] (BNC: A1B 1)

### **V. Demonstrative Double Genitive, Post-modification by a Noun**

1. Al Gore, the vice-president, was fussing over him; aides were rushing in and out, adding thoughts to his speech. Suddenly, Mr Clinton was reminded

*of that quip of Bismarck's, that making laws is a lot like making sausages.*  
(BNC: CR7 1)

2. *And don't forget that plan of Portillo's to slash state spending.* (BNC: CRA 1)
3. *'It belonged to my sister actually.' That phrase of Heather's , snatched from a context he could not recall, alighted in his memory.* (BNC: H8T 1)
4. *Tug tried to imagine Doyle having a joyful moment. Difficult. And yet he could almost see it reflected in the Woman's wide eyes and her glowing, excited face. Certainly that moment of Doyle's was real to her.'* (BNC: AC4 1)
5. *I mean that thing of Scott's won't be any good without the appropriate thing will it? It's got ta be portable you see, that microphone of Scott's [...]*  
(BNC: KE6 1)
6. *He really believed that line of Blake's: 'The path of excess leads to the tower of wisdom', something like that.* (BNC: ACP 1)
7. *'Aunt Louise, that letter of Celia's , what was the little bit of writing beneath' Dear Mother', and the bit after her name at the end?' Her face softened.* (BNC: AC7 1)
8. *'When the first bell went and I saw the way Lennox was going after him I told the guys watching with me that Ruddock had better watch for that left of Lewis's or he'd be counter-punched with the right and get himself knocked out -- and that's exactly what happened.'* (BNC: CEP 1)
9. *He'll be good company for that kid of Connors .* (BNC: GUD 1)

10. *If he felt, sometimes, that he had heard too little of **that interview of Primaflora's**, and that there was something of desperation now in her love-making, he didn't pursue it for once; and even the matter of Katelina remained only as an anxiety held well in check.* (BNC: KPE 1)
11. *And **that fellow of Benedetta's** who helped her away to Shrewsbury when the Welsh took the town?* (BNC: KBS 1)
12. *'Talking of chairs,' said Dalziel, 'there was a report from forensic, wasn't there, on **that chair of Connon's** ? Nothing useful, I suppose?'* (BNC: GUD 1)
13. *This trait of Richard's gave the Young King some reason to hope that he might be able to win over his father, Henry of Anjou, to an Angevin cause.* (BNC: EFV 1)
14. *'This story of Terry's about going after your father to ask him for a loan to buy a small-holding -- what do you make of that?'* (BNC: HWP 1)
15. *Noble's matter-of-fact voice made short work of the interim report.' And **this shed of Benyon's**. We've about mapped it, took us most of the day.* (BNC: H8L 1)
16. *[...] as I undressed, lit the candles and got into the bath in **this room of Eva's**.* (BNC: C8E 1)
17. *Throughout the pamphlet *Hic Mulier* seems to be in sympathy with **this remark of Montaigne's** [...]* (BNC: A6D 1)
18. ***This observation of Freud's** has profound implications for the way in which psychoanalytic theory about groups and societies is built up.* (BNC: ECY 1)

19. *This letter of Madame's isn't entirely accurate... (BNC: AR2 1)*
20. *Even **this lark of Gary's** was something, having a horse and learning to shoot straight. (BNC: AT4 1)*
21. *I'll never learn to ride! It's a farce, **this idea of Sylvester's.**' (BNC: AT4 1)*
22. *This idea of Morgan's is far from ridiculous. (BNC: A6S 1)*
23. *What would they call **this fantasy of Rose's?** (BNC: K8V 1)*
24. *Without **this faculty of Richard's**, the world could not be maintained in its present state. (BNC: H0R 1)*
25. ***This action of Reg's** was totally irresponsible on two counts. (BNC: FR9 1)*
26. *[...] if he can't bring nothing that man, which I'm sure he will I shall go and buy something, I mean **that thing of Scott's** won't be any good without the appropriate thing will it? (BNC: KE6 1)*
27. *One thing was clear, though, from **that stealthiness of Adam's**: he hadn't come here to ask Ben Hesketh for the cup.' (BNC: F99 1)*
28. ***That statement of Rabbit's** will be true (as our first truism about truth tells us) if and only if there really is honey still for tea. (BNC: FBD 1)*
29. *'Ari,' she said, not wanting to add her surname in case **these colleagues of Roirbak's** had heard of Ewan.' (BNC: AD9 1)*
30. *Which in practice turned out to mean Carol and Bill, **these friends of Kelly's.** (BNC: BP8 1)*

31. (*These ideas of Gramsci's have been notably developed and applied to recent criminal justice policy by Stuart Hall [...]* (BNC: FBC 1)
32. *Taskopruzade quotes from his father these words of Hocazade's: [...]* (BNC: H7S 1)
33. *'They will use you to taste what they've been given, You may die like those men of Pesaro's.'* (BNC: BP0 1)
34. *But those values of Hawkeye's are not American, or European.* (BNC: CK6 1)
35. *Those votes of Caraher's which were transferable went for the most part to Hendron (Alliance) in Stage VI III, and ensured his election with a surplus of 498.* (BNC: H7C 1)
36. *In the weeks and days which followed Ruth clung to those words of Ernest's.* (BNC: CB5 1)
37. *Those words of Kafka's, which have never ceased to haunt me: [...]* (BNC: A08 1)
38. *[...] these kids of our Carrie's they know how to work all these [...]* (BNC: KDM 1)
39. *Yuan could see his dead brother, Han Ch'in in that posture of his father's.* (BNC: GUG 1)
40. *He is closely connected with that woman of yer father's , Rosalli Gabrielli.* (BNC: GV6 1)
41. *[...] surely she would not endure this decision of her father's as to her future?* (BNC: CD2 1)

42. *'This experience of your son's in the vestry of St Matthew's, did he talk to you about it [...]'* (BNC: CJF 1)
43. *[...] just last night that made her cool and wary towards **this friend of her mother's**.* (BNC: GUE 1)
44. *It's **this friend of my brother's** who lives in the same block.* (BNC: GV8 1)
45. *Godwin and the sons of Thorfinn's brother Duncan and **this young great-nephew of Emma** 's were the men who would see Europe and perhaps guide it [...]* (BNC: HRC 1)
46. *This whole charade of Wolff 's was the elaborate opening round of some little scheme of theirs to humiliate her.* (BNC:HP0 2)
47. *'This spontaneous attitude of Nigel 's was adopted when choosing the landscapes.'* (BNC: FT7 3)
48. *The trainees should be able to lay out a sequence of responses to **this simple situation of Katy's**.* (BNC: CGS 4)
49. *Now, with **this new drive of Thorfinn's**, when the adherence and co-operation of every man was important [...]* (BNC: HRC 8).
50. *There is round-the-table sniggering at **this bold assertion of Fred's**.* (BNC: CGC 18)
51. *In **that sexy dress of Faye's**?* (BNC: H9H 23)
52. *In 1968, however, **that rare talent of Clark 's was taken from the sport when he lost** [...]* (BNC: EX1 24)

53. [...]my weakest hour and provided me with food if not **that damned creation of Frankenstein's?** (BNC: HGS 30)
54. There are love-letters -- I know it-in **that black chest of Tod's.** (BNC: FYV 31)

## **VI. Demonstrative double genitive, postmodification by a pronoun**

1. **This body of mine** in which I had taken no pleasure or pride, he was honouring, saying [...] (BNC: FPF 2)
2. I decided I needed a solid-body guitar for regular playing, and **this friend of mine** had this Firebird. (BNC: C9L 2)
3. [...] but **this solution of mine** is absolutely denied, from the frequency and regularity of the appearance of these seeds [...] (BNC: FTT 2)
4. **That hand of mine** won't go the right shape although I've tried, I knew it would deform joints and so I put all my efforts into spreading them the opposite way, [...] (BNC: G4G 1)
  
5. *that brother of mine/hers*
6. *that machine of yours*
7. *that voice of hers*
8. *that account of yours*
9. *that agent of yours*
10. *that ankle of yours*
11. *that army of yours*
12. *that bag of hers*
13. *that beard of yours*
14. *that belief of his/yours*
15. *that bike of mine*
16. *that bloke of yours*
17. *that book of his/yours*
18. *that boy of yours/ours*
19. *that brain of yours/mine*
20. *that briefcase of yours*
21. *this son of mine*
22. *this strategy of yours*
23. *this stubbornness of yours*
24. *this tale of yours*
25. *this team of mine*
26. *this temper of yours*
27. *this theory of mine/yours*
28. *this thing of mine*

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|-----|---------------------------------------|-----|--------------------------------------|
| 29. | <i>this twin of yours</i>             | 62. | <i>this city of ours</i>             |
| 30. | <i>this unicuture of yours</i>        | 63. | <i>this claim of yours</i>           |
| 31. | <i>this utopia of yours</i>           | 64. | <i>this colleague of mine</i>        |
| 32. | <i>this vendetta of yours</i>         | 65. | <i>this concern of theirs/ours</i>   |
| 33. | <i>this visit of yours/hers</i>       | 66. | <i>this course of yours</i>          |
| 34. | <i>this wardship of his</i>           | 67. | <i>this decision of yours</i>        |
| 35. | <i>this weakness of mine/yours</i>    | 68. | <i>this demon of yours</i>           |
| 36. | <i>this wedding of yours</i>          | 69. | <i>this description of mine</i>      |
| 37. | <i>this wickedness of yours</i>       | 70. | <i>this Doyle of yours</i>           |
| 38. | <i>this wife of yours</i>             | 71. | <i>this dream of yours</i>           |
| 39. | <i>this will of mine</i>              | 72. | <i>this engagement of yours</i>      |
| 40. | <i>this Willis of yours</i>           | 73. | <i>this enterprise of ours</i>       |
| 41. | <i>this wireless of mine</i>          | 74. | <i>this essay of mine</i>            |
| 42. | <i>this world of mine/ours/theirs</i> | 75. | <i>this ethic of yours</i>           |
| 43. | <i>this writing of yours</i>          | 76. | <i>this experience of mine/yours</i> |
| 44. | <i>this Wyrnberg of yours</i>         | 77. | <i>this family of yours</i>          |
| 45. | <i>that way of theirs</i>             | 78. | <i>this father of hers/his/yours</i> |
| 46. | <i>that welcome of yours</i>          | 79. | <i>this fiance of yours/min</i>      |
| 47. | <i>that whip of yours</i>             | 80. | <i>this flat of yours</i>            |
| 48. | <i>that widow of his</i>              | 81. | <i>this foundry of yours</i>         |
| 49. | <i>that wife of his</i>               | 82. | <i>this frankness of yours</i>       |
| 50. | <i>that wound of his</i>              | 83. | <i>this ghost of yours</i>           |
| 51. | <i>this ability of his</i>            | 84. | <i>this girl of yours</i>            |
| 52. | <i>this aggression of yours</i>       | 85. | <i>this god of yours</i>             |
| 53. | <i>this ale-house of yours</i>        | 86. | <i>this goddaughter of mine</i>      |
| 54. | <i>this aunt of mine</i>              | 87. | <i>this grandfather of mine</i>      |
| 55. | <i>this belt of mine</i>              | 88. | <i>this guest of yours</i>           |
| 56. | <i>this boat of yours</i>             | 89. | <i>this guy of ours</i>              |
| 57. | <i>this boyfriend of yours</i>        | 90. | <i>this hair of mine</i>             |
| 58. | <i>this cab of yours</i>              | 91. | <i>this half-brother of hers</i>     |
| 59. | <i>this camera of yours</i>           | 92. | <i>this Harry of yours</i>           |
| 60. | <i>this case of yours</i>             | 93. | <i>this heroine of hers</i>          |
| 61. | <i>this Cindy of yours</i>            | 94. | <i>this history of yours</i>         |

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| 95.  | <i>this Hugh of yours</i>         | 128. | <i>this passion of his</i>            |
| 96.  | <i>this hunger of mine</i>        | 129. | <i>this picture of yours</i>          |
| 97.  | <i>this husband of yours/hers</i> | 130. | <i>this plan of his</i>               |
| 98.  | <i>this hut of yours</i>          | 131. | <i>this power of yours</i>            |
| 99.  | <i>this hypothesis of his</i>     | 132. | <i>this principle of ours</i>         |
| 100. | <i>this idea of hers</i>          | 133. | <i>this product of yours</i>          |
| 101. | <i>this information of ours</i>   | 134. | <i>this project of yours</i>          |
| 102. | <i>this inheritance of yours</i>  | 135. | <i>this proposition of mine/yours</i> |
| 103. | <i>this job of yours</i>          | 136. | <i>this province of ours</i>          |
| 104. | <i>this Kathleen of yours</i>     | 137. | <i>this rebellion of yours</i>        |
| 105. | <i>this lawyer of yours</i>       | 138. | <i>this restaurant of his</i>         |
| 106. | <i>this leer of his</i>           | 139. | <i>this ring of yours</i>             |
| 107. | <i>this leg of mine</i>           | 140. | <i>this saga of mine</i>              |
| 108. | <i>this letter of mine</i>        | 141. | <i>this sauce of yours</i>            |
| 109. | <i>this life of hers</i>          | 142. | <i>this scheme of his/ours</i>        |
| 110. | <i>this life of mine</i>          | 143. | <i>this shed of yours</i>             |
| 111. | <i>this London of ours</i>        | 144. | <i>this ship of ours</i>              |
| 112. | <i>this Mait of yours</i>         | 145. | <i>this ship of yours</i>             |
| 113. | <i>this man of yours</i>          | 146. | <i>this shrine of yours</i>           |
| 114. | <i>this man of yours</i>          | 147. | <i>this sister of hers</i>            |
| 115. | <i>this manner of his</i>         | 148. | <i>this sister of yours</i>           |
| 116. | <i>this marriage of his</i>       | 149. | <i>this society of ours</i>           |
| 117. | <i>this mate of his</i>           | 150. | <i>that man of his/mine</i>           |
| 118. | <i>this Melanie of his</i>        | 151. | <i>that mask of yours</i>             |
| 119. | <i>this memo of yours</i>         | 152. | <i>that molar of hers</i>             |
| 120. | <i>this movement of ours</i>      | 153. | <i>that mother of hers</i>            |
| 121. | <i>this muse of his</i>           | 154. | <i>that movie of yours</i>            |
| 122. | <i>this name of mine</i>          | 155. | <i>that neighbour of mine</i>         |
| 123. | <i>this nephew of his</i>         | 156. | <i>that niece of hers</i>             |
| 124. | <i>this news of yours</i>         | 157. | <i>that nonsense of his</i>           |
| 125. | <i>this number of yours</i>       | 158. | <i>that nose of yours</i>             |
| 126. | <i>this pal of mine</i>           | 159. | <i>that offer of yours</i>            |
| 127. | <i>this Pamela of yours</i>       | 160. | <i>that page of yours</i>             |

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| 161. | <i>that pal of yours</i>           | 194. | <i>that Terry of yours</i>         |
| 162. | <i>that phrase of his</i>          | 195. | <i>that title of yours</i>         |
| 163. | <i>that pony of yours</i>          | 196. | <i>that tooth of mine</i>          |
| 164. | <i>that pool of yours</i>          | 197. | <i>that trick of yours</i>         |
| 165. | <i>that potion of mine</i>         | 198. | <i>that uncle of yours</i>         |
| 166. | <i>that prince of yours</i>        | 199. | <i>that vicar of yours</i>         |
| 167. | <i>that printer of mine</i>        | 200. | <i>that victory of ours</i>        |
| 168. | <i>that programme of yours</i>     | 201. | <i>that view of his</i>            |
| 169. | <i>that proposition of yours</i>   | 202. | <i>that bucket of his</i>          |
| 170. | <i>that punch of his</i>           | 203. | <i>that car of hers/his/ours</i>   |
| 171. | <i>that putter of yours</i>        | 204. | <i>that cheroot of his</i>         |
| 172. | <i>that reliquary of hers</i>      | 205. | <i>that chest of his</i>           |
| 173. | <i>that robot of yours</i>         | 206. | <i>that child of ours</i>          |
| 174. | <i>that rock of yours</i>          | 207. | <i>that cock of yours</i>          |
| 175. | <i>that scheme of yours</i>        | 208. | <i>that cough of hers</i>          |
| 176. | <i>that school of ours</i>         | 209. | <i>that cousin of yours</i>        |
| 177. | <i>that school of yours</i>        | 210. | <i>that dad of yours</i>           |
| 178. | <i>that secret of yours</i>        | 211. | <i>that dog of his</i>             |
| 179. | <i>that secretary of his</i>       | 212. | <i>that doppelgnger of yours</i>   |
| 180. | <i>that shop of his</i>            | 213. | <i>that ego of yours</i>           |
| 181. | <i>that sister of mine/yours</i>   | 214. | <i>that face of hers</i>           |
| 182. | <i>that smack of his</i>           | 215. | <i>that farm of yours</i>          |
| 183. | <i>that smile of his</i>           | 216. | <i>that fish of yours</i>          |
| 184. | <i>that song of yours</i>          | 217. | <i>that flag of yours</i>          |
| 185. | <i>that spaceship of yours</i>     | 218. | <i>that floodlight of yours</i>    |
| 186. | <i>that stepmother of yours</i>    | 219. | <i>that galley of ours</i>         |
| 187. | <i>that stick of his/mine/your</i> | 220. | <i>that gelding of yours</i>       |
| 188. | <i>that stomach of hers</i>        | 221. | <i>that gesture of his</i>         |
| 189. | <i>that suggestion of hers</i>     | 222. | <i>that habit of hers/mine</i>     |
| 190. | <i>that suitcase of hers</i>       | 223. | <i>that hair of yours</i>          |
| 191. | <i>that tape of his</i>            | 224. | <i>that head of his/yours/mine</i> |
| 192. | <i>that telephone of yours</i>     | 225. | <i>that house of hers</i>          |
| 193. | <i>that temper of yours</i>        | 226. | <i>that idea of yours</i>          |

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| 227. | <i>that intensity of his</i>     | 258. | <i>those flares of his</i>         |
| 228. | <i>that Jake of yours</i>        | 259. | <i>those eyes of yours</i>         |
| 229. | <i>that Jasper of yours</i>      | 260. | <i>those eyelashes of hers</i>     |
| 230. | <i>that judgement of mine</i>    | 261. | <i>those exams of hers</i>         |
| 231. | <i>that kid of yours</i>         | 262. | <i>those creatures of yours</i>    |
| 232. | <i>that knife of yours</i>       | 263. | <i>those coats of yours</i>        |
| 233. | <i>that lackey of his</i>        | 264. | <i>those cheeks of thine</i>       |
| 234. | <i>that lamp of yours</i>        | 265. | <i>those biscuits of yours</i>     |
| 235. | <i>that leg of his</i>           | 266. | <i>those beliefs of yours</i>      |
| 236. | <i>that lightness of his</i>     | 267. | <i>those beetles of yours</i>      |
| 237. | <i>that limerick of hers</i>     | 268. | <i>those bairns of mine</i>        |
| 238. | <i>that lip of yours</i>         | 269. | <i>these words of yours</i>        |
| 239. | <i>that longing of his</i>       | 270. | <i>these words of his</i>          |
| 240. | <i>that luck of hers</i>         | 271. | <i>these trips of his</i>          |
| 241. | <i>those eyes of hers</i>        | 272. | <i>these tears of hers</i>         |
| 242. | <i>those yachts of yours</i>     | 273. | <i>these roads of ours</i>         |
| 243. | <i>those words of his</i>        | 274. | <i>these plans of yours</i>        |
| 244. | <i>those visitors of hers</i>    | 275. | <i>these parties of mine</i>       |
| 245. | <i>those turns of hers</i>       | 276. | <i>these omissions of his</i>      |
| 246. | <i>those scenes of mine</i>      | 277. | <i>these notes of yours have</i>   |
| 247. | <i>those retentions of his</i>   | 278. | <i>these lines of his</i>          |
| 248. | <i>those parents of yours</i>    | 279. | <i>these legs of mine</i>          |
| 249. | <i>those others of mine</i>      | 280. | <i>these jungles of yours</i>      |
| 250. | <i>those notes of mine</i>       | 281. | <i>these interventions of mine</i> |
| 251. | <i>those memories of yours</i>   | 282. | <i>these ideas of ours</i>         |
| 252. | <i>those lips of yours</i>       | 283. | <i>these ghosts of yours</i>       |
| 253. | <i>those legs of yours</i>       | 284. | <i>these ghosts of mine</i>        |
| 254. | <i>those jaws of yours</i>       | 285. | <i>these conditions of yours</i>   |
| 255. | <i>those inhibitions of hers</i> | 286. | <i>these chemicals of his</i>      |
| 256. | <i>those hawks of yours</i>      | 287. | <i>these brothers of mine</i>      |
| 257. | <i>those guardians of yours</i>  | 288. | <i>these arms of yours</i>         |

## 9. České resumé

Tématem této diplomové práce je anglická postnominální genitivní konstrukce tradičně nazývaná "double genitive" (např. *a friend of Jim's; a friend of mine*). "Double genitive" je v angličtině výjimečnou frází, protože obsahuje společně oba prvky označující genitivní frázi, které se v jazyce vyskytují: enklitik 's i předložku *of*. Povrchovou strukturou je tak kombinací prenominální posesivní fráze (která obsahuje enklitik 's, např. *Jim's book*) a postnominální posesivní *of*-fráze (která obsahuje předložku *of*, např: *a house of my father*). Tradiční gramatiky se frázi "double genitive" věnují, neposkytují však pro tento jev explanaci. Generativní literatura nabízí několik možných variant analýzy syntaktické struktury, interpretace však není konzistentně popsána.

Cílem této diplomové práce je: a) komplexní popis vlastností "double genitive" konstrukce vycházející z tradičních gramatik, b) prozkoumání existujících analýz syntaktické struktury této fráze a v rámci generativního přístupu na základě X-bar teorie určení té, která nevhodnější, c) na základě teorie sémantických rolí určit interpretaci dané konstrukce.

Pro popis vlastností této fráze a její srovnání s ostatními genitivními frázemi jsem zvolila tři gramatické manuály: Quirk et al. (1985), Biber et al. (1999) a Huddleston and Pullum (2002). Prenominální genitiv a *of*-fráze spolu do značné míry korespondují, pokud mohou být vzhledem k podstatnému jménu, které je hlavou fráze realizovány obě fráze, je pravděpodobné, že význam bude stejný (*the ship's name ≈ the name of the ship*). Pokud nelze obě fráze použít, o tom, která je realizována rozhoduje několik faktorů: lexikální, relační, syntaktické, komunikativní a podmětné či předmětné vztahy, které fráze vyjadřuje. V zásadě platí, že genitivní *of*-fráze převládá u neživotních konkrétních podstatných jmen vyjadřujících frází předmětné vztahy, zatímco prenominální genitiv se používá s životními (většinou osobními podstatnými jmény) vyjadřujícími podmětné vztahy.

Ze srovnání prenominálního genitivu a *of*-fráze vyplynulo, že "double genitiv" je podtřídou prenominálního genitivu; s *of*-frází si v použití nekonkurují, protože hlava fráze "double genitive" podléhá odlišnému sémantickému vymezení: musí být určitá a životná (např: *a friend of John's*). Dalším specifikem jsou tři typy

determinace "double genitive" fráze: i) neurčitý (např: *a book of John's*), ii) určitý (např: *the book of John's*) iii) demonstrativní (např: *that book of John's*).

Druhá část práce se věnuje nalezení nevhodnější syntaktické struktury znázorňující nejpřesněji vlastnosti fráze "double genitive" a srovnání s prenominálním genitivem a *of*-frází. Tato část vychází z generativní gramatiky a zejména z X-bar teorie. První kapitola nastiňuje vývoj teorie popisující syntaktickou strukturu až po ustanovení X-bar teorie. Následující se venují principům fungujícím v slovesné frázi (VP) a vývoji, který přineslo začlenění funkční kategorie. Kapitola o jmenné frázi (NP) popisuje zejména post-modifikaci, která se vyvíjela na základě paralely se slovesnou frází: v obou se rozlišují komplementy a adjunkty. Začlenění funkčních kategorií ve slovesné frázi se odrazilo v nástupu DP-hypotézy, tedy začlenění funkčních kategorií do jmenné fráze. Po tomto obecném úvodu se následující kapitoly věnují několika analýzám možné pozice genitivních frází ve struktuře DP: je představena "Adjunktivní" analýza, Jackendoffova (1977) PRO analýza, Barkerova (1998) partitivní analýza a Kayneův (1994) přístup analyzující "double genitive" na základě transformací.

Třetí část je zaměřená na interpretaci a sémantické role, které může konstrukce "double genitive" nést. První kapitola představuje teorii argumentové struktury a tematických rolí v generativním rámci u sloves a deverbálních substantiv. V druhé je toto hledisko aplikováno na jmennou frázi (DP) a ve třetí je implementováno na "double genitive" frázi. Analýza možných interpretací dokazuje, že hierarchie syntaktických pozic korespondujících s konkrétní sémantickou rolí platí i v pro tuto frázi (podobně jako u slovesné fráze): vyšší syntaktické pozice (POSS a ADJ) odpovídají vyšším sémantickým rolím (POS a A1), nižší syntaktická pozice (COMP) odpovídá sémantické roli (A2).

S ohledem na interpretaci "double genitive" fráze se jako nevhodnější syntaktická struktura prokazuje "Adjunktivní" typ, v jehož rámci člen následující po předložce *of* zaujímá pozici Adjunktu.

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