

POSSESSIVES AND THEIR EQUIVALENTS IN ENGLISH AND CZECH: : A COMPARATIVE STUDY

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ABSTRACT: In this paper I am going to compare the morphosyntax of lexical entries called Possessive (POSS) in English and Czech. I will demonstrate that both the English and Czech nominal structures contain lexical and functional domains which host elements called Possessives. The interpretation of Possessives in both languages can be related to a universal thematic hierarchy distributing semantic roles between prenominal Possessives and postnominal Genitives. However, although Czech and English structures are rather similar, there are specific formal distinctions between the two, which limit their usage. Then, the languages apply comparable strategies to disambiguate and compensate for the specificity of their respective Possessives. I show that as a result of the formal distinctions in the constituent characteristics in the two languages, semantically and functionally adequate equivalents may be realised using distinct (but predictable) formal means.

KEY WORDS: English Possessive; Czech Possessive; postnominal genitive; of-genitive, double genitive; thematic hierarchy; nominal arguments

1. DETERMINER PROJECTION

In this study I demonstrate the semantic, morphological, and syntactic similarities between the Possessive (POSS) elements in English and Czech. Apart from the similarities I will point out several formal language specific characteristics of POSSs which disallow the full equivalence of the form in the two languages. Those characteristics will at the same time force the usage of the closest equivalent of POSS which in both languages is a postnominal Genitive (GEN) DPs/PPs.

First I will concentrate on similarities between the two languages. I will briefly summarise the justification of the universal nominal structure containing lexical and functional domains in Section 1.1. Then I will demonstrate a realisation of a thematic hierarchy and its formal representation including Possessives (POSSs) and Genitives (GENs) in Sections 2 and 3. In Sections 4 and 5 I will discuss the distinctions between the two languages introducing the formal and interpretational equivalents. I will also mention strategies which the languages use to compensate for the specificity of their respective POSSs and at the same time to disambiguate multiple semantic roles.¹

1.1. THE DP ANALYSIS OF NOMINAL PHRASES

There is no article in Czech providing an overt and direct evidence for a separate Determiner Phrase (DP) analogous to Abney's (1987) analyses of English DPs. However, due to many cross-linguistic studies, the DP projection has become a plausible universal in today's framework and can be accepted for Czech as well. Concentrating on distribution and word order, this section shows some indirect evidence which suggests the existence of a DP layer in Czech nominals.²

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² For more exhaustive argumentation in favour of the DP analysis of Czech nominal projection see in the initial chapter of this monograph. The premodification field, especially the order of prenominal Adjectives in English and Czech, is compared using corpora data in Veselovská (forthcoming).

First, let's recall the linear scheme which shows a generally accepted descriptive order of elements inside English Nominal phrases – as it was given already in Bloomfield (1933). In (1) I summarize the prenominal order as proposed in a standard English grammar Oxford manual, (Quirk 2004, 253) together with the authors' terminology. Notice that the initial (left side) frame in the scheme (1) is the position of the **Determiners**, i.e. of specific elements related to the categories of Number and Definiteness. This external field is distinguished from the field of pre-modifiers, (on the right side frame on the picture), which express a more varied scale of meanings related to the nominal head, and which is represented most frequently by projections of open class lexical Adjectives.

(1) Noun structure: **linear order**

a.	<i>all</i>	<i>the</i>	<i>many</i>	<i>very handsome</i>	<i>BOYS</i>
b.	<i>both</i>	<i>those</i>	<i>two</i>		
	pre-Determiner / central Determiner / post-Determiner +			Adj. modifiers	+ NOUN

The examples in (2), (3) and (4) illustrate Quirk's taxonomy of the **Determiner field**, which consists of three distinguishable slots. The examples provide also some of the authors' lexical entries for each of the separate slots of the Determiner template.

- (2) **Central Determiners:**
obligatory, unique
complementary with
- a. Articles (*a [an] / the / Ø*)
 - b. demonstratives (*this, these/that, those*)
 - c. **Possessives**
 - d. *what/which/whose*
 - e. *some/any/no*
 - f. *every/each/either/neither*
- (3) **Pre-Determiners:**
general Quantifiers
- a. *all/whole/both/half*
 - b. *double/twice/three times/one third*
 - c. *such / (exclamative) what*
- (4) **Post-Determiners:**
Numerals
- a. cardinal Numerals (*three, fifty . . .*)
 - b. ordinal Numerals (*third, seventeenth . . .*)
 - c. closed class Quantifiers (*few/ many/ little/less/several*)

Calling the Determiner field a *template* is perhaps not the most standard use of the term, but it suggests that the number of English Determiners is restricted to a strictly given number of (at most three of usually closed class) elements in one phrase, and even more crucially, it is restricted to only one (unique) element in the middle slot designated for **Central Determiners**. As shown in (2), the so called Possessive (POSS) belongs to the group of Central Determiners in English and as such, it shares the language specific properties of its group, namely it is subject to obligatoriness and uniqueness.

Looking briefly at the parallel linear structure of a Czech complex NP, the example (5) shows, that Czech has a range of expressions which translate the English Determiners. They appear in the same surface positions – i.e. at the left edge of the complex nominal phrase, although none of them is obligatory or unique, i.e. none has the language specific properties of English Central Determiners.

- (5) *všichni*

<i>takoví</i>	<i>ti</i>	<i>jacísi</i>	<i>tvoji</i>
those	the	some	your

dobří *věrní* *kamarádi*
all good faithful friends
“all those/the good faithful friend of yours”

Considering the linear order of the elements in front of the head Noun in Czech and in English, the examples in (6) suggests that both Czech and English (mostly Adjective) pre-modifiers enjoy a certain level of freedom determined by pragmatic factors (? signals a marked order).

- (6) a. *malé hodné bílé kočky* b. ? *hodné malé bílé kočky*
 c. *small nice white kittycats* d. ? *nice small white kittycats*

In contrast, in (7) the order of the elements belonging to the Central Determiner field is strictly grammaticalized i.e. unique in English and fixed in Czech. Moreover, the example in (8) shows that mixing elements between the modifier and Determiner fields is **not** consistent with the required reading either.

- (7) a. *ten tvůj dobrý kamarád* b. **tvůj ten dobrý kamarád*
 c. **the your good friend* d. **your the good friend*
 “the good friend of yours”

- (8) a. (**chytrý*) *ten* (**chytrý*) *tvůj bratranec*
 b. (**smart*) *the* (**smart*) *your cousin*

To conclude – the examples (6)–(8) argue for a specific Determiner field in a Czech Noun Phrase, which is distinct from the pre-modifying field and in this sense it is fully comparable with the English nominal structure. The lexical entries located in the DP layer comprise in both languages the same range of elements, as was illustrated in English in (2)–(4): the Quantifiers/Numerals at the peripheries and Demonstratives/Possessives in the centre.

Starting with interpretation, in the following sections I am going to describe in detail the morphosyntax of one of the lexical entries appearing in the Determiner field, namely those of the Possessive (POSS). Comparing English and Czech, the data suggest a universal mapping of semantic roles to a universal binary structure of a DP.

2. ARGUMENT INTERPRETATION OF ENGLISH AND CZECH POSSESSIVES

Concerning interpretation of POSSs, the lists from (9) to (13) is taken from the most easily available source of generic grammar (Wikipedia). Notice that it gives a range of fuzzy meanings which *apart* from the most frequent interpretation of physical “ownership” i.e. possession are apparently typical for English POSSs. Without arguing against vagueness and incompleteness of the list, I want to point out the meanings in (12) and (13), which contain semantic concepts similar to Fillmore’s (1968) verbal semantic Cases, i.e. conceptual roles related to a verbal action like e.g. Agent, Patient, and Theme.

- (9) the person or thing to which the “possessed” stands in the **designated relationship**
 e.g. *my mother, his ancestor, your colleagues, our boss . . .*
- (10) the person or thing of which the “possessed” is **a part**
 e.g. *my leg, the building’s walls, my personality*
- (11) a person or thing **affiliated** with or **identifying** with the “possessed”
 e.g. *his country, our class, my people, their enemy, my counterpart*
- (12) the **performer**, or sometimes the **undergoer**, of an action
 e.g. *his arrival, the government’s overthrow*
- (13) the **creator, supervisor, user**, etc. of the “possessed”
 e.g. *Prince’s album, the Irish jockey’s horse, a designer’s plan*

The list above suggests that English POSS is able to carry semantic roles similar to verbal arguments.³ Discussing a specifically Nominal valency in terms of a Thematic Frame and/or Argument Roles, already Chomsky (1972), and then in more detail Grimshaw (1991) demonstrate that POSS and GEN attributes in English are able to carry a range of Argument Roles. The authors demonstrate that the top Argument role related to (derived) Nominals, i.e. “A1 of N” is either Possessor or Agent can be realised as the Possessive. A parallel discussion of Czech data, soon concentrating on the argument interpretations, is briefly summarized below.

2.1. NOMINAL ARGUMENTS

The following (14) is taken from the traditional descriptive study by Ludvíková and Uhlířová (2011). The authors give the most standard though vague description of the range of meanings and characteristic properties of POSS in Czech without mentioning semantic roles at all.⁴

- (14) a. Relation of **origin, creation, discovery** = “usually POSS”
 b. POSS is inherently **specific, unique/individual, concrete**

On the other hand, the examples (15) below compare Czech and English paraphrasing the claims made in a detailed study by Karlík (2000). The author discusses Czech derived nominals with respect to their valence and complementation. In the framework of *Remarks on Nominalization* (see Chomsky 1972), Karlík demonstrates that there is a close parallel between verbal and nominal valence in Czech (15a/c), the same one which applies in English (15b/d).

- | | | | | |
|------|----|------------------------------|------------------|-------------------------------|
| (15) | a. | <i>Petr (Novák)</i> | <i>namaloval</i> | <i>Evu (Pospíšilovou)</i> |
| | | Peter _{NOM} (Novák) | painting | Eve _{ACC} (Pospíšil) |
| | b. | <i>Peter (Novak)</i> | <i>painting</i> | <i>Eva (Pospisil).</i> |
| | c. | <i>Petrův</i> | <i>obraz</i> | <i>Evy (Pospíšilové)</i> |
| | | Peter's _{POSS} | picture | Eve _{GEN} (Pospíšil) |
| | d. | <i>Peter's</i> | <i>picture</i> | <i>of Eva (Pospisil).</i> |

The example (15a/b) above moreover demonstrates that the higher, **external** Argument role A1, e.g. a “subjective” interpretation of Agent, is marked with Nominative in a verbal projection. The same reading is assigned in (15c/d) to a POSS located on the high periphery of a nominal projection. The next, lower or **internal** A2 (an “objective” interpretation of Patient) is located in the position of post-verbal structural Accusative in (15a/b) or postnominal GEN in (15c/d), both of which are complement positions, adjacent to their respective heads V/N. Notice that with respect to this specific interpretation, Czech and English are the same.⁵

2.1.1. The categorial status of the Czech POSS

The argument interpretation of the POSS may contradict the traditional Czech linguistics which labels Possessives as Adjectives or a kind of hybrid category, because they have their own gender morpheme and at the same time they show agreement with the head Noun. Veselovská (1998) argues in detail that Czech Possessives are best analysed as NPs, i.e. they are not so distinct from the English Possessives,

³ The meanings described in (12) and (13) are sometimes labelled as “subjective” readings – i.e. the readings related to verbal subjects. These are to be differentiated from “objective”, i.e. Patient or Theme interpretations of POSS which are absent in (9)–(11) although they are equally likely.

⁴ For more about interpretation of Czech Possessives see also Vachek (1954, 1972), Piřha (1992), Veselovská (2001), Karlík (2000), Čmejrková (2003) and Svozilová and Uhlířová (1990, 2011).

⁵ Comparing Czech with English, a detailed analysis of the positions and structures of the POSS and postnominal GEN in a Principle and Parameter framework can be found in Veselovská (1998).

which are DPs. One of the arguments is given below. Notice that the Czech Possessive in (16), which appear in the same field as the English one, is able to serve as antecedent to a pronoun. In (16a) a *president* is a nominal attribute, in (16b) it is a Possessive – they both are Nouns and therefore they both can be antecedents to *he* in the next clause, having plausibly a comparable referential set. The contrasting (16c) example shows that the same co-reference is **not** attested with true Czech Adjectives.

(16)

- | | | | |
|----|--|--|--|
| a. | <i>Před hotelem stála</i>
in front of the hotel there was | <i>limuzína našeho prezidenta_i</i>
a limousine of our president _i | <i>ale on_{i/j} v hotelu nebyl</i>
but he _{i/j} was not in the hotel |
| b. | <i>Před hotelem stála</i>
in front of the hotel there was | <i>prezident-ov-a_i limuzína,</i>
president's _i limousine | <i>ale on_{i/j} v hotelu nebyl</i>
but he _{i/j} was not in the hotel |
| c. | <i>Před hotelem stála</i>
in front of the hotel there was | <i>prezident-ská_i limuzína,</i>
a presidential _i limousine | <i>ale on*_i v hotelu nebyl</i>
but he* _i was not in the hotel |

Czech POSS can even bind an anaphor as demonstrated below in (17). In (17a) a verbal structure is demonstrated, which shows the same properties as the nominal one with POSS in (17b) – while the contrasted Adjective in (17c) cannot bind the anaphor in either Czech or English.

- | | | | | |
|------|----|---|---|---|
| (17) | a. | <i>žena_i</i>
woman _i | <i>obvykle mluví</i>
usually talks | <i>o sobě_{i/*j}</i>
about herself _{i/*j} |
| POSS | b. | <i>žen-in-o_i</i>
woman's _i | <i>obvyklé mluvení</i>
usual talking | <i>o sobě_{i/*j}</i>
about herself _{i/*j} |
| ADJ | c. | <i>žen-ské_i</i>
feminine _{ADJ-i} | <i>věčné mluvení</i>
permanent talking | <i>o sobě*_i</i>
about ??self* _i |

Assuming only nominal elements have a referential set able to bind an anaphor, the POSSs in (17) must be nominal elements. Moreover, the ability to bind an anaphor signals that both English and Czech POSS is located in the position equivalent to the highest (external) clausal argument – Subject.

The examples (16) and (17) show also the distinction between the adjectival (long vowel *-ská/-ské*) agreement in (16c) and (17c) and the Possessive (short vowel “pronominal” *-ov-a/-in-o*) agreement in (16b) and (17b). In the latter the morphemes *-ov_{MASC}/-in_{FEM}* represent the Czech Gender-marked POSS morphemes.⁶

2.2. SEMANTIC ROLE HIERARCHY IN AN NP

A nominal valence signalled in example (16) above is still distinct from a verbal one with respect to the role of Possessor, missing with Verbs, as well as with respect to the obligatoriness and ambiguity of the arguments. Grimshaw (1991) distinguished the obligatory **Theta** roles with Verbs from the optional **Semantic** roles with Nouns, though she did not discuss the nature of the distinction.

⁶ A tendency to call also the Czech morpheme *-ský/-ská* a kind of “possessive” morpheme, may result from a tradition to derive all terminology from meaning. The morpheme, however, does not express unambiguously a possession in Czech. See the examples below contrasting the POSS morphemes *-ův/-in-* with the generic adjectival *-ský/-ská* and the unmarked distribution of the two forms is also rather distinct.

The English equivalents *-’s* and *-ian* capture the distinction quite well.

- | | | | |
|-----|---------------------------------|-----|------------------------------------|
| i. | <i>Shakespear-ův nový sonet</i> | vs. | <i>nový Shakespearov-ský sonet</i> |
| | <i>Shakespear’s new sonet</i> | vs. | <i>new Shakespear-ian sonet</i> |
| ii. | <i>Mariina poslední píseň</i> | vs. | <i>poslední Marián-ská píseň</i> |
| | <i>Mary’s last song</i> | vs. | <i>last Mar-ian song</i> |

Looking at (18), we can see that when POSS appears with the Noun as the *only* argument, its interpretation is ambiguous – namely *Petr/Eva* in (18) can be interpreted “subjectively” i.e. as A1 = Possessor, or Author, or also “objectively” as A2 = Theme. Exactly the same ambiguity (i.e. as both A1 and A2) is true about (19), where the Czech postnominal GENs are demonstrated in the absence of POSSs.

- (18) POSS-N: A1/A2 *Petrův/Evin* *obraz*
 Peter_{POSS} / Eve_{POSS} picture
- (19) N-GEN: A1/A2 *obraz* *Petra Nováka* / *Evy Pospíšilové*
 picture [Peter Novak]_{GEN} / [Eve Pospíšil]_{GEN}

However, there are productive and systematic ways to disambiguate the readings, and some of them operate quite universally, as demonstrated below for English and Czech. First, when POSS co-occurs with GEN – as in (16) above or (20) below – the co-occurrence of POSS and GEN forces a nonambiguous reading. In both languages, POSS obligatorily takes a **higher** role than GEN, confirming thus a universal semantic hierarchy proposed by Fillmore (1968) for verbs. *Mary* in both Czech and English (20) is A1, i.e. Possessor or Agent, while *Picasso*, no matter how unlikely it is, is A2 in (20), a Patient or Theme, i.e. the person portrayed on the picture.

- (20) a. *Mariin* *obraz* *Picassa*
 Mary_{POSS} picture Picasso_{GEN}
- b. *Mary's* *picture* *of Picasso*
 “Mary = A1, Picasso = A2”

Another well-known disambiguation strategy also attested across languages and also parallel with verbs, is shown in (21) and (22). It is the usage of a designated preposition *by* in English and *od* in Czech NP/DP, which force the unambiguously Agentive interpretation of the following constituent. The POSS and GEN then take one of the remaining/lower roles, i.e. of Possessor or Patient, in keeping with the semantic hierarchy.

(21) “Mary = A2, Picasso = A1”

- a. *Mariin* *obraz* **od** *Picassa* b. *obraz* *naší Marie* **od** *Picassa*
 Mary_{POSS} picture by Picasso_{GEN} picture our Mary_{GEN} by Picasso
- c. *Mary's* *picture* **by** *Picasso*. d. *the picture* *of our Mary* **by** *Picasso*

- (22) a. *Maruščin* *obraz* *Picassa* **od** *neznámáho umělce*.
 Mary_{POSS} picture Picasso_{GEN} by unknown artist
- b. *Mary's* *picture* *of Picasso* **by** *an unknown artist*.
 “X = A1, Mary = A2, Picasso = A3”

Examples like (21) and (22) above make some authors, for Czech e.g. Karlík (2000), claim that the structures with POSS interpreted as A2 are parallels to verbal passives with the PP equivalent to INSTR Case (a *by*-phrase in English). I am not going to develop these ideas here further pointing out only the similarity between the two languages.

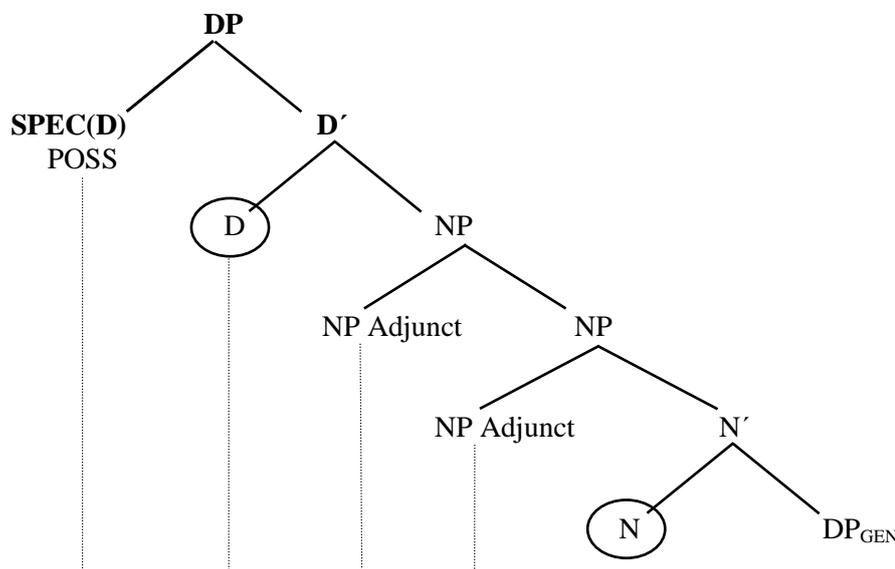
3. STRUCTURAL POSITIONS OF POSS AND GEN

The tree in (23) summarizes the data discussed above. It shows a nominal complex as consisting of two separate projections (fields) – one formed around a lexical Noun (N) head and the other around a functional projection of a Determiner (D) head. Both N and D heads are in circles in (23).⁷

The scheme also shows the two hierarchically ordered Argument positions – marked with boxes in (23) – the peripheral (external) position of the POSS, which is located in the D projection (field), namely in SPEC(D). The structurally adjacent (internal) position of the postnominal GEN is the right-hand complement of a lexical N.

Notice that the scheme in (23) corresponds to the linear description in (24) which repeats Quirk's (1). And finally, notice that there is no reason to suppose that (23) or (24) is distinct in Czech from English, in spite of the fact that Czech does not have a prima facie candidate for a lexical entry realizing the D head. It is characteristic of synthetic languages, Czech being a typical example, to realise functional morphemes in the form of bound morphology instead of separate free functional words.

(23) Positions of POSS and GEN



	<i>my grandmother</i> 's <i>babičč</i> [_D in] a Ø	<i>big new</i> <i>velká nová</i>	<i>book</i> <i>kniha</i>	<i>of stories</i> <i>pohádek</i> _{GEN}
(24)	pre/central/post-Determiners DETERMINATION FIELD	pre-modifiers MODIFICATION FIELD	<u>NOUN</u>	post-N GEN

Having described the similarities, in the next part of this paper I am going to point out some distinctions between the two languages, concentrating on the POSS element.

⁷ The structuralist and generative history of the NP/DP structure in English (and universally) can be followed in Bloomfield (1933), Szabolcsi (1981), Chomsky (1986), Abney (1987). For Slavic (more controversially) see Zlatić (1997), Pereltsvaig (2007), Bošković (2011) or Caruso (2012).

4. SOME LANGUAGE SPECIFIC PROPERTIES OF POSSESSIVES IN ENGLISH

First let's ask about the **constituent characteristics** of POSS concentrating on English. Although the position of Central Determiner can be occupied in English with a very minimal element, e.g. an article or pronoun as in (25a), the non-pronominal English POSS in (25b) is clearly a more complex constituent. The same complex characteristics hold for the postnominal GEN, which is a prepositional phrase (PP) with a potentially complex nominal phrase following a preposition *of* in English in (25c)

- (25) a. [DP [**an/my**] [NP *older brother living in Budapest*]]
 b. [DP [**your little sister Mary's**] [NP *old friend living in Budapest*]]
 c. *the older brother* [PP *of* [DP [**mine/little Mary/the little girl in the blue coat**]]]

The examples in (26–27) below prove that POSS is in fact a DP, Determiner phrase, i.e. a full nominal complex, including its own Determiner field. The presence of the separate Determiner of the English POSS is also indicated by a specific interpretation. Jackendoff (1977) provides examples like (26) to argue in favour of percolation of the definiteness feature from the POSS element to the whole nominal complex. Jackendoff argues that the contrast in (26a) and (b) is a result of the required indefinite interpretation of English NP subjects in existential structures.⁸

- (26) a. *There was* [DP **a daughter** *of the farmer*] *waiting at the shop/in the barn.*
 b. **There was* [DP **the daughter** *of a farmer*] *waiting at the shop/in the barn.*

Analogically, Jackendoff interprets the contrast between similar examples (27). He argues that the example in (27b) is strongly marked precisely because the definite article of the POSS *the farmer's* percolates to the whole nominal complex *the farmer's daughter*, in spite of the fact that it belongs to the POSS *farmer* only.⁹

- (27) a. *There were* [DP [DP **a farmer**] 's daughters] *waiting at the shop/in the barn.*
 b. **There were* [DP [DP **the farmer**] 's daughters] *waiting at the shop/in the barn.*

The example (28) below demonstrates that the English POSS DP can have its own premodification as in (28a) and also postmodification, as e.g. *of mine / of England / outside* in (28b, c, d).

- (28) a. [DP [DP **That strange young man**] 's stupid opinions about evolution] *irritate me.*
 b. *I lost* [DP [DP **a friend of mine**] 's two favourite books].
 c. [DP [DP **The Queen of England**] 's hat] *is as wide as Mary's.*
 d. [DP [DP **The crowd outside**] 's slogans] *angered the Prime Minister.*

The undeniably phrasal characteristics of the POSS constituent makes the English morpheme *-s* a very special kind of morpheme. Contrary to a standard inflection, which is selected by a categorical head, the Possessive *-s* seems to criticize on the phrasal boundary – irrespective of the category of the very final element.¹⁰

⁸ In Jackendoff (1977) the Determiner head was not yet located outside a projection of lexical N.

⁹ With the exception of examples like those below, the rhematic DP position in English existential structures does not tolerate elements high on the definite scale, like DPs with definite articles, pronouns of proper names.

- i. *If you insist on buying it immediately, there is always* [DP [DP **the shop**] *next to the bus stop*].
 ii. *I was desperate to talk to somebody and then I remembered that there was always*
 [DP [DP **the farmer**] 's daughter in the barn]] *doing chores.*

¹⁰ For discussion within Czech comparative linguistics see already Vachek (1954). Influenced by presumably universal Indo-European patterns the author labels the morpheme *-s* derivational.

On the other hand, recall, that as mentioned above in (5), and repeated here in (29) the restricted (template) of the Determiner field in English disallows more than one Central Determiner. If there is a need to mark the larger DP specificity separately, POSS must give way to an article or demonstrative as in (29a/b). POSS is then realised using its closest equivalent – a postnominal *of*-phrase (*of*-GEN).

- (29) a. *a/my friend*
 b. **a my friend, *that my friend*
 c. *a friend of mine, that friend of mine*

4.1. DOUBLE GENITIVE

The postnominal *of*-phrase in English can contain the DP marked with a POSS morpheme -'s. The resulting structure underlined in (30c) is labelled traditionally as a **double genitive**.

- (30) a. *a/John's friend, that young man's friend*
 b. **a John's friend, *some that young man's friend*
 c. *a friend of John's, some friend of that young man's*

The double genitive in (30c) is an equivalent of (29c) with the independent pronoun *mine*. Both the structures require unambiguous interpretation as A1 (i.e. Possessor of Agent). Given their compatibility and ordering with another *of*-phrase, as in (31) below, the English double genitive is best analysed as an adjunct. The distribution illustrated in (31) below signals that these PPs are located more externally than the English simple *of*-GEN.¹¹

- (31) a. *a picture of John of Mary's / of mine*
 b. **a picture of Mary's of John, *a picture of mine of John*
 c. **a picture by Mary's of John, *a picture by mine of John*

Considering the two postnominal *of*-phrases in (31) above and (32) below, notice that the prepositions *of* do not assign the same Case. The objective pronoun *him* shows a structural objective Case while the agentive *mine* is in Genitive (?).

- (32) a. *a picture of him of mine*
 b. **a picture of mine of him*

The higher (adjunct) position of the English double GEN w.r.t. the standard postnominal “simple” GEN is supported also by the example (33) below. The (33a) is interpreted as the picture with *me* as the Patient/Theme, while in (33b) *mine* carries the role of A1, Possessor/Agent.

- (33) a. *the/his picture of me* *me = A2* *he = A1*
 b. *the/?his picture of mine* *me = A1 (Agent/Poss)* *he = A1 (Poss/Agent)*¹²

The following examples support such analysis: in (34) the inalienable possession, if it cannot be expressed using the prenominal POSS, requires the pronoun *mine* or a double genitive.

- (34) a. *this/my hand* a' **this my hand* a'' *this hand of mine/*me*
 b. *that/John's hand* b' **that John's hand* b'' *that hand of John's / *John*

¹¹ For a discussion of the double genitives in English in a formal post-structuralist (generative) framework see Jackendoff (1977), Kayne (1994) or Baker (1998).

¹² E.g. *He painted five portraits of his girlfriend and gave them to her best friends, including me. His picture of mine is hanging in the kitchen.*

c.	<i>every/mother's chair</i>	c'	<i>*every mother's chair</i>	c''	<i>every chair of mother's /*mother</i>
d.	<i>which/mother's dishes</i>	d'	<i>*which mother's dishes</i>	d''	<i>which dishes of mother's /*mother</i>

The examples above prove that the English *of*-phrase can appear in two structural positions. As in (23), where it is a sister of N, or as adjunct. The lower position (“simple” *of*-GEN) is marked by a structural object Case and is interpreted as A2, while the higher one (perhaps not necessarily marked by a double GEN) is interpreted as A1.

In the same time, the (34') and (34'') examples on the right repeatedly support the general observation about the complementarity of POSS and GEN in English: if POSS is not available for the element interpreted as A1, Possessors/Agents take an alternative position in the postnominal field and are realized as the “simple” or double *of*-GEN.

To conclude, English POSS is a phrasal element which expresses the highest argument role present in the specific nominal projection. It is in complementary distribution with other Central Determiners and therefore in the presence of any of them the POSS must be realized postnominally. The postnominal position usually correlates with a more specific interpretation: a “simple” *of*-GEN carries A2 or non-argument interpretation, double *of*-GEN is a form related to A1 interpretation, and an explicit PP, a *by*-phrase, is inherently Agentive, too.

5. SOME LANGUAGE SPECIFIC PROPERTIES OF CZECH POSSESSIVES AND GENITIVES

In this section I am going to show that the English compensation strategy, i.e. the interchange of POSS with GEN or PP, is used also in Czech– if there are reasons which force its application. I will show that the reasons are language specific, i.e. Czech they are distinct from those applying in English.

First recall the discussion in sections 1–3 of this chapter, which demonstrated that the Czech equivalents of English Determiners appear at the left periphery of the complex DP, but contrary to English, central Determiners are neither obligatory nor unique in Czech. The relevant examples are repeated below. (35a/b) demonstrate that contrary to English the Czech Determiners are not obligatory and (35c/d) that the presence of elements ranking among English central Determiners does not prevent POSS from appearing prenominally in Czech and there is therefore not a reason for any alternative realisation as in the English (35a).

- (35)
- | | | |
|----|----------------------------|----------------------|
| a. | <i>(jedna/nějaká/moje)</i> | <i>kniha</i> |
| b. | <i>*(a/some/my)</i> | <i>book</i> |
| c. | <i>takový nějaký jeho</i> | <i>kamarád</i> |
| d. | <i>*such that his</i> | <i>friend</i> |
| e. | <i>such/this</i> | <i>friend of his</i> |

Comparing Czech with the English examples (26–31) in the preceding section, i.e. in light of the constituent characteristics and complexity of English POSSs and GENs, (36) shows that Czech postnominal structural GEN is a full nominal phrase as it is also in English in (25c).

- (36)
- | | |
|--------------|--------------------------------------|
| <i>obraz</i> | <i>té naší malé Marie</i> |
| picture | [the our little Mary] _{GEN} |
| | “a/the picture of our little Mary” |

As for the POSS, (34) demonstrates that the Czech POSS can be separated i.e. extracted from a Noun phrase, and fronted independently, when contrastively stressed. Although the examples in (37b) are not unmarked options in Czech, they are fully acceptable. The assumed base position of the initial demonstrative/ POSS/ Adjective is marked as [-] in (37).

(37)

- a. *Jakou si vzal [-] knihu o zvířatech?*
Which REFL_{CL} took_{3SMP} [-] book about animals
“Which book about animals did he take?”
- b. *Takovou zelenou / **Moji** / Moc velkou si vzal [-] knihu o zvířatech.*
such green/ my_{POSS} / very large REFL_{CL} took_{3SMP} [-] book about animals
“The book about animals he took was so green/**mine**/very large.”

Notice that with respect to the fronting phenomenon, Czech POSSs behave like interrogative *wh*-constituents or AP pre-modifiers – both of which rank among phrasal constituents undergoing a phrasal movement. Therefore, based on (37) I classify Czech POSS as a phrasal constituent, too.

5.1. RESTRICTIONS ON THE FORMAT OF THE CZECH POSS

On the other hand (38) reveals that contrary to a clearly phrasal (multiverbal) postnominal GEN in (38a), the prenominal POSS in modern Czech must be a **bare** phrase, i.e. a phrase consisting from “one word only”. In other words, the POSS *babiččin* (“grandmother’s”) in (38b) does not tolerate any pre- or post-modification which was possible with GEN in (36) and (38a).

- (38) a. *dům [DP **té** **mojí** **hodné** **babičky** z **otcovy strany**]*
house [the_{GEN} my_{GEN} nice_{GEN} grandmother_{GEN} of father’s side]
“(the) house of my nice grandmother of my father’s side”
- b. *(***té** /***moj?** /***hodn?**) **babiččin** (* z **otcovy strany**) *dům**
(*the/*my /*nice) grandmother_{POSS} (* of father’s side) house
“grandmother’s house”

The bare characteristics make Czech POSSs structurally distinct from the English POSSs. The one-word-only constraint is one of the main reasons for alternative realisation of the Czech potentially POSS elements in some other than POSS positions.

Looking at the format of the POSS, contrary to English phrasal characteristics in (25) and (28), the Czech POSS requires a rather specific feature content – it can be derived only from Nouns in singular and animate, i.e. with intrinsic semantic gender. The following examples in (36–39) demonstrate these feature requirements.

First notice the specific morphology of Czech POSS: Masculine Nouns take the *-ov-* suffix followed by a Phi feature agreement. For Feminine it is the synchronically less productive *-in-* suffix. There is, however, no Neuter inflection equivalent to the morphemes *-ov-*/*-in-* and therefore no Czech Possessive can be derived from neuter Nouns like *dítě* (“child”) or *děvče* (“girl”). With neuter Nouns, where POSS is not possible, the only alternatives are interpretatively equivalent postnominal GENs as in (39b) or a non-argumental generic prenominal Adjective as in (39c).

- (39) a. *otcův/matčín/ *dítětův /*děvčetův/ *dítětin / *děvčetin pokoj*
father’s/mother’s / *child / *girl_{POSS(M)} / *child/ *girl_{POSS(F)} room
- b. *pokoj (našeho/nějakého) dítěte/děvčete*
room (our/some) child/girl_{GEN}
- c. *dětský/dívčí pokoj*
child/girl_{ADJ} room

POSS cannot be realised, a Czech GEN phrase is an alternative, keeping an ambiguity equivalent to the prenominal POSS.

- (43) a. **naš? Maruščina fotografie*
 *our Mary_{POSS} photograph
 “our Mary’s photograph”
 (Mary = A1/A2)
- b. *fotografie naši Marušky*
 photograph our Mary_{GEN}
 “a photograph of our Mary /*Mary’s”
 (Mary = A1/A2)

However, if the argument can be realised as POSS (with ambiguous interpretation) as in (44a) the bare GEN alternative in (44b) cannot be interpreted as A1 and becomes A2 (Patient/Theme) similarly to an English “simple” *of*-GEN.

- (44) a. *(jedna) Maruščina fotografie*
 (one) Mary_{POSS} photograph
 “a photograph of Mary/Mary’s”
 (Mary = A1/A2)
- b. *jedna fotografie Marušky*
 one photograph Mary_{GEN}
 “a photograph of Mary /*Mary’s”
 (Mary = A2/*A1)

With personal pronouns, where the Czech POSS is always available, a GEN is not an option at all.¹⁴

- (45) a. *nějaká moje kniha*
 some my book
 “some book of mine”
- b. **nějaká kniha mne/mě*
 some book me_{GEN}
 *“some book of me”

On the other hand, the polarity pronouns like *nikdo* (“nobody”) do not carry inherent gender in Czech and therefore they cannot form POSS. A postnominal GEN is then the only option and its interpretation remains vague.

- c. *obraz nikoho*
 picture [nobody]_{GEN}
 “nobody’s picture”

Apart from a poorly understood restriction on pronouns illustrated above, Czech also does not have equivalents of the English double *of*-GENs demonstrated in (34), which were able to disambiguate the semantic roles. The highest A1 role can be expressed as one of the possible roles of the ambiguous complex GEN as in (43) above, or it can be realised by the means of the PP, the equivalent of the English *by*-phrase. The ordering of GEN and such a PP is obligatory and it suggests an adjunct analysis of the *od* (“by/from”) PP. It is demonstrated in (46a) below with *Mary* = A1 and *John* = A2. However, the example (46c) shows that contrary to English *by* the Czech preposition *od* (“by/from”) does not have intrinsically agentive interpretation. It can introduce Agents as well as e.g. donators, because it has a possible directional interpretation, too. If *od* (“by/from”) is introducing a non-argument, the POSS remains ambiguous because it is the only semantic role present.

- (46) a. *jeden obraz Jana od Marie*
 one picture John_{GEN} by Mary
- b. **jeden obraz od Marie Jana*
 one picture by Mary John_{GEN}

¹⁴ Unless coordinated or modified as below.

- i. *obrázek mne/mě a tebe*
 picture me_{GEN} and you_{GEN}
 “a picture of me and you”
- ii. *obrázek jenom tebe*
 picture only you_{GEN}
 “a picture of only you”

- c. *Janův obrázek od Marie*
John_{POSS} picture by/from Mary
 “John’s picture by Mary/from Mary”

Concluding the section dealing with language specific characteristics of the Czech POSS, we have seen that it is a bare [+HUMAN, SINGULAR] element located in the high periphery of the Czech DP. As in English, it the position realising the highest semantic role present in the nominal projection. Contrary to English, however, the argument interpretation is obligatory in Czech. Apart from the formal restrictions, i.e. its bare [+HUMAN, SINGULAR] characteristics, Czech POSS must be a semantic argument of the Noun and it does not allow so easily a generic interpretation, which makes it distinct from English POSS allowing a range of meanings.¹⁵

If the Czech language specific formal or semantic reasons prevent the element to be realised as POSS, the closest equivalent is the postnominal GEN. When the realisation as GEN is forced, the interpretation remains ambiguous. On the other hand, when the choice of GEN is not forced, i.e. the constituent fulfils the constraints on Czech POSS, the postnominal, bare, [+HUMAN, SINGULAR] GEN is interpreted preferably as A2, similarly to the English “simple” GEN. The only disambiguating strategy forcing the A1 reading in the postnominal position in Czech is a PP using the preposition *od* (“by”).

6. EQUIVALENTS FORCED BY THE LANGUAGE SPECIFIC PROPERTIES OF POSS

I have demonstrated that English and Czech nominal projections are formally the same in that they both contain lexical and functional projections (DP) hosting specific lexical entries – one of which is a POSS element. Both Czech and English nominal complexes allow a realisation of semantic arguments including a Noun-specific role of the Possessors which represents (together with Agent) the highest semantic role (A1). The argument hierarchy applies to the hierarchically ordered prenominal POSS and postnominal GEN positions. It is identical in the two languages and can be summarised as follows in (47).

(47) Constitutional hierarchy for the Argument roles inside the DP

- a. *od/by-PP*
 b. i. POSS
 ii. double/complex GEN
 c. simple/bare GEN

Considering the above hierarchy, both languages take into account also a kind of more or less obligatory economy criterion. In both English and Czech the highest formal form, i.e. the unambiguous *od/by-PP* variety is taken for less economical than the POSS and GEN and they opt for the *od/by-PP* only in cases when clear interpretation is required and the other options are unavailable. Both languages also prefer the GEN argument position, i.e. the position “lower” in a hierarchy, only in case the higher one (i.e. POSS) is formally inaccessible.

Apart from a bit vaguely defined economy, the discussion and examples in this study demonstrate that in both English and Czech the format of the element in the position of POSS is restricted by strictly morphosyntactic characteristics which are **language specific**. In Czech they are (i) a **bare** characteristics of the POSS morphology, and (ii) gender and number **feature restriction** on POSS. In English it is the **uniqueness** of the position of Central Determiner, i.e. the uniqueness of the head D housing the phrasal –’s morphology of POSS.

¹⁵ See (9) above. In more detail the same topic is discussed in Chomsky (1972), Grimshaw (1991) and many others. For the exclusively argumental interpretation of the Czech POSS see Veselovská (1998) or Karlík (2000).

In both languages the phrasal postnominal GEN is the closest equivalent of the POSS. The occurrence of such GENs is in most contexts predictable – they are the elements which did not have the semantic and/or formal properties allowing them to become POSSs. In both English and Czech, the GENs which do fulfil the language specific constraints on POSS (i.e. those which could be realised as POSSs), carry a restricted interpretation of A2 only. To express the unambiguous A1 postnominally, English can use a double GEN, and both languages have a disambiguating strategy applying prepositions *od/by*.

The examples in (48–52) summarise and illustrate the choice of alternatives discussed above. First I concentrate on the examples when the format in Czech and English is the same, then on examples when the same interpretation requires a distinct form.

The example (48) shows English and Czech POSSs which are ambiguous as long as they are the only arguments of the Noun.

(48) Cz POSS → Eng POSS

	a.	<i>můj/Petrův</i>	<i>bratr/obraz</i>	POSS = A1/A2
CZ		my/Peter _{POSS}	brother/picture	
→ ENG	b.	<i>my/Peter's</i>	<i>brother/picture</i>	POSS = A1/A2

While (48) above demonstrated ambiguous simple POSSs occurring in both languages, (49) and (50) below show that with GENs, English can be more specific than Czech. In (49a, b) a Czech complex postnominal GEN remains ambiguous as long as its realisation is forced by its structure. The English counterpart is either a “simple” *of*-GEN with a preferred A2 interpretation or as double *of*-GEN with A1 reading. Only if the Czech postnominal GEN is bare (i.e. it could become POSS) as in (49c) its interpretation is preferably A2 and its full English equivalent is then a “simple” *of*-GEN in (49d).

(49) Cz GEN → Eng GEN

	a.	<i>obraz</i>	<i>mého přítele</i>	complex GEN = A1/A2
CZ		picture	my friend _{GEN}	
→ ENG	b.	<i>a picture</i>	<i>of my friend's</i>	double GEN = A1
	b'	<i>a picture</i>	<i>of my friend</i>	“simple” GEN = A2
	c.	<i>obraz</i>	<i>přítele</i>	bare GEN = A2
CZ		picture	friend _{GEN}	
→ ENG	d.	<i>a picture</i>	<i>of my friend</i>	“simple” GEN = A2

In (50) the Czech POSS appear together with another element qualifying as Central Determiner in English. Given the language specific uniqueness constraint for Central Determiners, English cannot translate it as POSS and postnominal GEN is forced which is in the same time able to disambiguate the interpretation.

(50) Cz POSS → Eng *of*-GEN

	a.	<i>ten můj/Petrův</i>	<i>obraz</i>	POSS = A1/A2
CZ		the my/Peter _{POSS}	picture	
→ ENG	b.	<i>the picture</i>	<i>of mine/Peter's</i>	double GEN = A1
	b'	<i>the picture</i>	<i>of me/Peter</i>	“simple” GEN = A2

In (51) below the English POSS cannot be translated as POSS in Czech given the language specific constraints on the POSS form. The argument in (51a) is too complex to be realised as POSS in Czech and therefore it must be realised as GEN. Because the GEN form is forced, it remains ambiguous in the same way as the English complex POSS.

(51) Cz GEN → Eng POSS

	a.	<i>Obraz</i>	<i>mého bratra</i>	
CZ		picture	[my brother] _{GEN}	= A1/A2
ENG	b.	<i>my brother's</i>	<i>picture</i>	= A1/A2

In (52) examples of English non-argument POSSs are given which in Czech cannot become POSS. They can be replaced by non-argumental GENs, generic Adjectives, or various PPs.

(52) GEN/AP/PP → POSS

	a.	<i>struktura</i>	<i>románu</i>		c.	<i>zemská</i>	<i>oběžná dráha</i>
CZ		structure	[novel] _{GEN}			Earth _{ADJ}	orbit
ENG	b.	<i>the novel's</i>	<i>structure</i>		d.	<i>Earth's</i>	<i>orbit</i>
	g.	<i>hodný</i>	<i>jejich peněz</i>		e.	<i>u</i>	<i>Toma</i>
CZ		worth _{ADJ}	[their money] _{GEN}			at	Tom _{GEN}
ENG	h.	<i>their money's</i>	<i>worth</i>		f.	<i>at</i>	<i>Tom's</i>

Competent translation entails the judicious blending of both *semantic/functional* and *formal* equivalents. This study demonstrated that although Czech and English have seemingly adequate equivalents of POSSs and/or postnominal GENs, the language specific formal characteristics of especially the POSS element are nontrivial. The distinctions in the morphosyntax of POSSs characteristics in the two languages consequently lead to distinct formal equivalents of otherwise functional and interpretative equivalents. The choice of the form, however, is not random or instinctive but it can be predicted and evaluated while using a correct structural analysis of the two languages.

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Categories and Categorical Changes: