Determination and modification: Topology of prenominal attributes in Lithuanian

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Abstract. This paper offers a description of the linear structure of the definite Lithuanian noun phrase (NP) with an emphasis on prenominal attributes. Morphological and syntactical coding of definiteness is examined through the comparison of NP structures in Lithuanian (a language with relatively ungrammaticalised marking of definiteness) and Swedish (a language with fully developed overt marking of definiteness). The special role of definite attributes, quantifiers and adjectival modifiers is shown through identifying key positions in a linear structure of the Lithuanian NP. A topology of the Lithuanian NP is then suggested reflecting the multi-layered nature of the reference-assigning process mirrored in multi-exponential marking of definiteness, with adjectival marking being a very important one. Variations in NP structures are described using Lithuanian and Swedish data focusing on the combinatorial possibilities of definite adjectival modifiers and other determiners.

Keywords: adjective, genitive, definiteness, demonstrative, determinative, noun phrase, quantifier, prenominal

1 Introduction

1.1 Background and aim

The interest of this paper lies within the topology of the definite Lithuanian noun phrase (NP). Hence the analysis of the structure of the definite Lithuanian NP will be seen through the interplay of morphology, syntax, and (pragmatic) definiteness. It has to be noted that limited research is available in the structure and syntax of the Lithuanian NP, thus this paper will have a twofold aim, namely to describe and propose a rationale for the linear structure of the definite Lithuanian NP; and do so with a particular emphasis on the morphological and syntactic encoding of definiteness, which, as we will argue, affects the line-up of prenominal attributes. The marking and expression of indefiniteness will not be explicitly analysed here.

1.2 Data and method

Lithuanian data will be compared to its Scandinavian analogues, mainly Swedish (SW), which exhibits elaborate and fully grammaticalised definiteness marking. Moreover, a feature shared by the Scandinavian languages and Lithuanian (LT) is the adjectival encoding of definiteness that will figure prominently in this paper. Additionally, Swedish, similarly to Lithuanian, displays several loci of definiteness in an NP, which enables us to make an instructive comparison of the topology of the NP. According to Mikulskas (2006, 33), when researching the grammatical challenges surrounding definiteness in any language, especially in a language with weakly grammaticalised marking of definiteness, viz. lacking formal definiteness markers like articles, it is useful to compare the data to that of languages that represent a well-developed model of definiteness encoding, namely where marking of (in)definiteness is fully grammaticalised and obligatory. Therefore the comparison of the two opposite poles, Swedish on the one hand and Lithuanian with its minimal formal definiteness marking on the other, would enable a more detailed and refined analysis of the Lithuanian definite NP structure, as cross-linguistic typological research has a reversed perspective too: not only does it enable generalisations, but also working in the opposite directions, it informs the description of linguistic phenomenon in a particular language (Croft 2004, 9; Haspelmath 2010, 663–687). Also, for the purpose of a detailed and theory-neutral distributional grammar description the English data (authentic examples) and the *Cambridge Grammar of the English Language* (CGEL[1]) will be extensively used. For the Scandinavian languages, mostly the concepts and terms used in the *Swedish Academy Grammar* (SAG[2]) will be employed; a few references

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[1]   CGEL = Huddleston, Rodney & Geoffrey K. Pullum, eds. 2002. *The Cambrigde Grammar of the English Language*. Cambridge: Cambridge University Press.
[2]   SAG = SAG = Teleman, Ulf, Staffan Helleberg & Erik Andersson, eds. 1999. *Svenska Akademiens grammatik*. Stockholm: Svenska akademien, Nordstedts ordbook.

will be made to the *Grammar of the Danish Language* (GDS[3]) and the two grammars of the Norwegian language, viz. *Norsk referansegrammatik* (NRG[4]) and *Norsk som fremmedspråk: Grammatikk* (NFS[5]).

All the examples presented in this paper, unless a specific source is quoted, are collected from the Danish, English, Lithuanian, and Swedish corpora of written language. No quantitative analysis was carried out for the purpose of this paper. Instead, certain syntactic structures, e.g. *demonstrative + noun*, or *demonstrative + adjective+ noun* or *quantifier + demonstrative+ noun* just to mention a few, were searched in databases of the languages mentioned to reflect the unique syntactic usages in respective languages. The point of departure was the Swedish NP structure with clearly identified positions for various functions on a phrasal level (SAG, Vol 3, 13), e.g. determiner (Det) (in SAG *definita attribut*), demonstrative (Dem), quantifier (Q), adjectival modifier (Adj). A few Lithuanian examples (based on the similar structures attested for by the corpus) were constructed for illustrative purposes and reflect the author's native competence. Some were found online (not in corpora). Both of the latter are indicated in respective footnotes.

1.3 Key concepts and terms

In this paper, the term noun phrase (NP) refers to a complete discourse-oriented structure containing a common noun or proper noun (or another word with a noun-like function[6]) with or without preposed (prenominal) or postposed (postnominal) attributes, e.g. *knyga* 'a book', *garsi knyga* 'a famous book', *garsioji knyga* 'the famous book', *pirmoji jos knyga* 'her first book', *knyga apie Kauno apskrities žmones* 'a book about people from Kaunas County', *trys jos bičiulių išleistos knygos* 'three books published by her buddies', etc.

Since the research object of the paper is the phrase, the focus will be on the syntactic functions within the phrase, namely those of head and dependent(s). The head is a noun (or another word with noun-like function), e.g. *knyga* 'a book'. It can have dependents that are syntactically subordinate elements (CGEL, 24), viz. complements, e.g. *knyga **apie Kauno apskrities žmones*** 'a book about people from Kaunas County'; modifiers,

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[3]   GDS = Hansen, Erik & Lars Heltoft. 2010. *Grammatik over det Danske Sprog*. Århus: Syddansk Universitetsforlag.

[4]   NRG = Faarlun, Jan, Svein Lie & Kjell Ivar Vannebo, eds. 1997. *Norsk referansegrammatikk*. Oslo: Universitetsforlaget.

[5]   NFS = Anne Golden, Kirsti Mac Donald & Else Ryen, eds. 2008. *Norsk som fremmedspråk: Grammatik.*(3. utgave). Oslo: Universitetsforlaget.

[6]   Adjectival or ordinal nominalisations, pronouns and participles, e.g.: *linksmasis šviesiaplaukis iš penkto aukšto* 'the cheerful blonde from the fifth floor; *tie naujai atsikraustę į šį namą* 'those (who have) recently moved into this house'.

e.g. **garsi** *knyga* 'a famous book'; and determiners, e.g. **ta** *knyga* 'the/that book'. Only the grammatical elements preceding the noun, called prenominal attributes, will be analysed. Postnominal elements and structures modifying the noun[7], e.g. relative clauses, prepositional phrases (PP), appositions, etc. will not be analysed here. To sum up, mainly modifiers and determiners will be examined. Most complements, such as postnominal PPs, e.g. *atsakymai į mano klausimus* 'the answers to my questions', are excluded because of their position; in the case of prenominal genitives, e.g. *Respublikos prezidentė* 'the President of the Republic', it is often difficult to establish whether they are complements or modifiers, and while we will of course deal with such genitives in this article, the important question for our purpose will be whether they perform a determiner function as well or not. Henceforth I will oppose only modifiers and determiners, distinguished on the basis of their having descriptive content or not.

The NP/DP (determiner phrase) controversy opposes different views as to which element of the NP should be treated as the head (sometimes also called *nucleus*) of a nominal structure. On the DP hypothesis, it is determiners that function as heads of NPs; in more traditional grammars, it is nouns (this term is not self-explanatory and might be treated differently in different grammars)[8] that constitute the core of a noun phrase. In this paper, I will refer to the noun or a noun-like element (see section 1) as the head of an NP.

In this article, I will describe an NP with prenominal attributes as a sequence of elements lining up from left to right with the head being the rightmost element, in other words, I will examine the linear structure of the NP. It is evident that prenominal attributes form inner structures, phrases of their own, e.g. *visi trys* **mano vaikystės draugės** *vaikai*[9] 'all three children of my childhood friend', where *my childhood friend* is an NP in its own right. As Perridon notes, each different field[10] in a Swedish NP "may contain syntagms of an internal structure of their own" (Perridon 1989, 201). The same can be said about Lithuanian prenominal attributes. However, these imbedded relations (hierarchical) between the inner phrases will not be analysed here; all the elements will be treated as co-existing on the same linear level.

Two questions should be posed now: 1) What lexical classes perform as determiners,

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[7]   In the function-oriented grammar of the Lithuanian language, these are called *kvalifika-toriai* 'qualifiers' as opposed to the preposed *modifikatoriai* 'modifiers' (Valeckienė 1998, 118–130).

[8]   CGEL, e.g., considers pronouns to be a subcategory of nouns rather than a word class of their own (CGEL 2002, 327) due to their functions that are very similar to those of common and proper nouns.

[9]   There is an ambiguity in this example, the sub-phrase *my childhood friend* could be interpreted as *[[my childhood] friend]* → 'a friend from my childhood times' or as *[my [childhood friend]]* → 'my childhood friend' the intended reading being the latter.

[10]   An overview of these fields as defined by Perridon is given in 6.1.

and what as modifiers? 2) What is the difference between determiners and modifiers; does it affect the placement of dependents within a positional linear structure of an NP? The answers to these questions are closely linked with the concepts of definiteness and referentiality. Both determiners and modifiers are crucial to reference identification (narrowing down the referential mass). However, it is only determiners that serve in assigning definiteness value to an NP, viz. "the determiner serves to mark the NP as definite or indefinite" (CGEL, 54). The elements that can trigger a definite reading of an NP will be called definiteness carriers to differentiate them from a lexical class of determinatives that do not necessary mark the NP as definite, e.g. cardinal numbers do not assign definiteness, yet they do contribute to determination and in CEGL and some Scandinavian (Norwegian) grammars would be classified as determinatives.

This is of particular interest when examining adjectival modifiers, as definite (also referred to as long and/or weak)[11] adjectival forms are the sole carriers of grammaticalised definiteness in Lithuanian; hence they could be treated as determiners. Should certain prenominal attributes in Lithuanian be treated as determinatives (a lexical class)? What is the syntactic function of genitives? What is the interaction between definite and indefinite adjectival forms in the same NP?

Having in mind the world's languages in general, Dahl notes: "NPs with adjectival modifiers tend to have at least as much and often more definiteness marking than simple NPs. Furthermore, there is a clear tendency for any definiteness marking, excessive or otherwise, to show up next to or on the adjective" (Dahl 2004, 151–152). It remains to be seen whether this is the case in Lithuanian.

1.4 Structure of the paper

The paper is structured in the following way: first, the definiteness marking systems in Swedish and Lithuanian will be briefly introduced focusing on the adjectival modifiers within an NP; then the distinction between determiner and modifier function will be discussed; this will be followed by detailed descriptions of various lexical classes of attributes functioning as either determiners or modifiers within an NP. A special section will be devoted to Lithuanian NPs with adjectival attributes – both long and short, and combining both types in the same NP. Finally, a topology of the definite Lithuanian NP will be proposed.

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[11]   In Germanic linguistics the definite adjectival forms are traditionally referred to as weak, while in the studies of the Slavic and Baltic languages they are traditionally referred to as long.

2 Definiteness marking systems

2.1 Swedish

This section will provide an essential summary of the definiteness marking system of the Swedish language.

Swedish nouns have an inflectional category called *species* (SAG, Vol 2, 96), opposing a form without a definiteness suffix, an indefinite form, to a form containing a definiteness suffix, a definite form. In other words, they have a definiteness category expressed by a nominal suffix, which varies according to the gender and number of the noun, e.g.:

(1) *en*   *film-Ø*   vs   *filmen*
     a.ART.INDEF   movie.SG   movie.SG.[COMM].DEF
     'a movie'   'the movie'

In the linguistic literature, this definiteness morpheme is called the suffixed definite article or marker (suffixal article) or the bound definite article, or the postposed definite article (here referred to as SDEF) (Perridon 1989, Delsing 1993, Börjars 1994, SAG, Lyons 2003, Dahl 2004 & 2010, Julien 2005, Lohrmann 2011). Moreover, Swedish also has a free-form definite article or a syntactic determiner, also called the preposed definite article *den*, which SAG describes as a special kind of definite pronoun (SAG, Vol 2, 301). I will refer to the preposed definite article as PDEF. It agrees with the noun in gender and number. This article is normally obligatory in a definite NP containing a descriptive prenominal attribute (modifier), if other definite attributes are absent (SAG, Vol 2, 301) or, in terms of CGEL, if determiner position is not filled by any other determiner and an NP contains an internal adjectival modifier (CGEL 330), e.g.:

(2) ***den***   *långa*   *filmen*
     the.ART.DEF   long.SG.DEF   movie.SG.[COMM].DEF
     'the long movie'

In other words, this article is only used if a noun has an adjectival attribute. That is why it is also sometimes called the adjectival definite article (SAG, Vol 2, 301). Other definite attributes include demonstratives[12] and determiner-possessives[13]. Among the adjectival

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[12] The Swedish pronoun *sådan* 'such', which according to SAG is classified as a comparative pronoun, may in some uses function as a demonstrative in definite NPs (van der Auwera & Coussé 2016). See also footnote 58.

[13] There are two types of possessives, determiner-possessives or determiner-genitives, and non-determiner genitives (Koptjevskaja-Tamm 2003, 516).

attributes, the so-called relational pronouns and their sub-groups need to be mentioned, as their definiteness value sometimes clashes with that of other determiners leading to what looks like irregularities (sometimes also called definiteness mismatches). These include comparative pronouns (e.g. *samma* 'same'), "ordinative"[14] pronouns (e.g. *första* 'first', *sista* 'last', förra 'previous'), perspectival pronouns (e.g. *nedersta* 'lowest', *vänstra* 'left') and focusing pronouns (e.g. *själv* 'self', *enda* 'the one', *blotta* 'only'). Also, quantifiers, especially universal quantifiers, play a special role in the structure of the Swedish NP, as well as in the reference identification process, as will be shown in the following paragraphs.

This preposed article is also used as a definite attribute in an NP if it is followed by a restrictive relative or narrative clause. In the case of a relative clause, the suffixed article may be omitted, e.g.:

(3)   **den**   *långa*   *film*   *som*   *jag*
      the.ART.DEF   long.SG.DEF   movie.SG.[COMM]   that   I

      såg   *igår*
      see.PST   yesterday
      'the long movie that I saw yesterday'[15]

Besides the preposed and/or suffixed articles, one more feature characterises a definite NP, namely the obligatory definite (weak) adjectival form (here referred to as AdjDEF). It is probably one of the most consistent indicators of whether a singular NP is definite or not. This, however, applies to NPs where the head of an NP is in the singular, since the weak form of an adjective is identical with the plural form of that adjective, e.g.:

(4)   *en*   *lång-Ø*   *film*   vs
      a.ART.INDEF   long.SG.INDEF   movie.SG.[COMM]
      'a long movie'

      den   *lång**a***   *filmen*
      the.ART.DEF   long.SG.DEF   movie.SG.[COMM].DEF
      'the long movie'

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14   The term "ordinative" pronouns is used by Dahl (2004, 153), which is borrowed from SAG (Vol 2, 233, 236, 243, 246 & 436). This term is created in parallel to the term *ordinatives* or ordinal numbers.
15   This example is my own. It builds on attested examples, like *den röda klänning(en) som jag mest älskade* 'the red dress that I loved the most' (SAG, Vol 2, 301).

To sum up, in a simple Swedish definite NP containing an adjectival modifier[16], there can maximally be three different types of definiteness markers, namely, a preposed free definite article (PDEF), a definite (weak form, AdjDEF) of an adjective, and a suffixed definite article (SDEF). The representation of a definite Swedish NP looks like this:

NPDEF = PDEF + AdjDEF + SDEF

Sometimes, for various reasons, one (or more) of the three markers above listed is omitted – it can be either PDEF or SDEF, or both PDEF and SDEF. AdjDEF, on the other hand, cannot be omitted under any circumstances[17], e.g.:

NPDEF = PDDEF + AdjDEF + SDEF[18]			Translation
den	galn-**e**	despot-**en**	*the crazy despot*
-	norr-**a**	sida-**n**	*northern side*
den	gråast-**e**	höstdag -	*the greyest autumn day*
-	först-**a**	pris-	*first prize*

Table 1. Patterns of definiteness marking in the Swedish definite NP

To conclude, it has to be said that in the well-developed Swedish system of determiners (definite attributes), containing overt definiteness markers, both syntactical and morphological, adjectives seem to play a significant role. In the literature analysing the Swedish NP much attention has been paid to the interplay between the free and the bound definiteness marker. However, I think that the absence of these markers (the previously mentioned definiteness mismatches) provide even more important insight into the interplay between the adjectival marking of definiteness and the definite status of an NP.

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[16] By the term "simple" I here refer to the NP containing one syntactic determiner being a free preposed article, one adjectival modifier, and the head marked for definiteness by the post-posed morphological article. This is done in order to distinguish between this type and other more complex types of NPs where several determiners and modifiers can be present, as well as some of them omitted, as shown in Table 1. It has to be noted that a distinction is also made by SAG (Vol 3, 15) between simple and complex definite NPs, complex NPs differing from simple ones in that that they start with a pronominal attribute, e.g. a totality pronoun, e.g. *alla hans nya cyklar* 'all his new bicycles'.

[17] There are very rare instances where the short form is used. See examples (36b) and (36c) for more information.

[18]   A detailed overview of the variation in definiteness marking across the Continental Scandinavian standard languages is available in an article by Dahl on definite articles in Scandinavian (Dahl 2004, 154).

2.2 Lithuanian

This section will provide an essential summary of the definiteness marking system of Lithuanian.

Lithuanian has one overt morphological indicator coding definiteness, namely the set of suffixal adjectival endings[19] added to the short forms of adjectives (agreeing with these in case, number and gender) to form the so-called 'long' or 'definite' adjectival forms[20]:

(5)   *baltas-Ø*   *laukas*   vs
      white.NOM.SG.M.INDEF   field.NOM.SG.[M]
      'a white field'

      *baltas-**is***   *laukas*
      white.NOM.SG.M.DEF   field.NOM.SG.[M]
      'the white field'

In Lithuanian grammars[21] the tradition has been to attribute the feature of definiteness to adjectives and not to the domain of the NP by stating explicitly that the notion of definiteness arises in the opposition of AdjINDEF and AdjDEF. However, in more recent publications it has become clear that in Lithuanian the scope of the category of definiteness and the locus of its marking do not coincide (Holvoet & Tamulionienė 2006, 13, 22). While morphologically the marker is located in an adjective, it has scope over a whole NP. Moreover, the opposition of short and long forms does not directly map onto a noun phrase as [-Def NP] versus [+Def NP], but as Sprauienė (Sprauienė 2008b, 119; 2011, 73) points out, the AdjDEF marks the definiteness of an NP [+Def NP] while the AdjINDEF[22] is neutral with regard to definiteness and can be described as [± Def NP].

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[19]   In contemporary Lithuanian, we witness the fusion of the former pronoun *jis/*ji with adjectival endings. Therefore we often refer to Lithuanian adjectives as having two sets of endings – definite and non-definite; where the definite ones are used to mark the definiteness of the NP (Holvoet & Sprauienė 2012, 72).

[20]   It is important to emphasise that not all adjectives have a paradigm of definite forms. It is only qualitative adjectives, as well as ordinal numbers, participles and some pronouns that can assume definite markers (Valeckienė 1957, 257–299, 299–301; Paulauskienė 1994, 220; Ambrazas 2006, 185–187, 245, 260, 367–369, Sprauienė 2008b,117).

[21]   It was in the English version of the Lithuanian Grammar of 2006 that the relation between the category of definiteness and the noun rather than the adjective itself was first noted: "The category of definiteness in the adjective is based on the opposition of definite adjectival forms, which in addition to their lexical meaning of quality contribute definite status to the noun they determine, and simple, or indefinite, adjectival forms, which lack the meaning of definiteness." (Ambrazas 2006,142).

[22]   For this reason Sprauienė marks these forms as AdjNONDEF. However, for the clarity of this paper and consistency with the marking of the Swedish adjectival forms I have chosen to use the marking of AdjINDEF, even though the marking suggested by Sprauienė more precisely

Moreover, even NPs containing long adjectival forms may not get their definite reading because of the presence of a definite adjectival form but rather because of some other factors, as illustrated in (6), explicitly in the reading (d):

(6) *Jis*   *įsimylėjo*   *gražią**ją***
     he   fall-in-love.3PST   beautiful.ACC.SG.F.DEF

     karaliaus   *dukterį.*
     king.GEN.SG.[M]   daughter.ACC.SG.[F]

     'He fell in love with the beautiful daughter of the king.'[23]

This example might have 4 different interpretations with regards to the AdjDEF:

  a) definite, if the context that the king had several daughters and only one of them was beautiful is provided;

  b) anaphoric definite, if it was mentioned in the preceding context that a king had a daughter and that she was beautiful;

  c) traditional grammars would argue that this example could also be the case of an "emphatic" use of the long adjectival forms, manifesting itself in folklore and fiction as standard traditional epithets, e.g. *senie**ji** tėveliai* 'the old.NOM.PL.M.DEF parents'. The more recent papers on the subject (Mikulskas 2006, 54–55, footnote 16; Sprauniėnė 2011, 111–112) agree that these instances should rather be treated as cases of generic reference or role reference. The adjectives here denote a property assumed to be inherent to the nominal referent, e.g. the parents are always old. In line with this, one could say that princesses are always beautiful.

  d) non-contributing to the definite interpretation, as the referent is identifiable on its own, but rather adding to the meaning of the NP by disabling an interpretation whereby if a short form of the adjective was used, the description *king's daughter* would have an indefinite meaning *king's daughter = princess*[24], thus the presence of a long adjectival form here is not redundant, according to Holvoet and Tamulionienė. Moreover, it could be argued that it is in a sort of definiteness agreement with a defined referent. In Lithuanian, this agreement is not obligatory, but in a corresponding Latvian example, it would be the case:

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reflects their relation to the category of definiteness. The distinction between marking INDEF and NONDEF is also used to refer to Scandinavian adjectives, e.g. Heltoft (2010, 14–25), however, referring to different phenomenon.

[23] This example is cited from Holvoet & Tamulionienė (2006, 26).

[24] Other similar examples of the kind would be *maldos namai* 'house of prayer' = a church (or a mosque, or a shrine) or *žodžio žmogus* 'a man of his word = a man of integrity, a man who keeps his promises'.

(7) *Viņš*   *iemīlēja*   *skaisto*
     he.NOM.SG.M   fall-in-love.3PST   beautiful.ACC.SG.F.DEF

     ķēniņa   *meitu.*
     king.GEN.SG.[M]   daughter.ACC.SG.[F]

     'He fell in love with the beautiful daughter of the king.'[25]

To sum up, in Lithuanian, as opposed to Swedish, there is no automatic agreement in definiteness (the NP may be definite without the adjective getting the definite ending). Moreover, often the adjective gets a definite ending because it makes a specific contribution to definiteness. Finally, while there is no general agreement in definiteness, there are certain types of definiteness which require the adjective to be definite even though it is not the only contributor to definiteness, e.g. the usage of adjectives with proper names, e.g. *garsusis Stephenas Hawkingas* 'the famous.DEF Stephen Hawking'.

Spraunienė argues that in contemporary Lithuanian the long adjectival forms always encode definiteness (Spraunienė 2011, 74–76), both on the level of individual and generic reference. As an argument for this interpretation she claims that definite adjectival forms cannot be used with indefinite modifiers; neither can they be used when a noun phrase is rhematic (comment) rather than thematic (topic). The definite forms in these contexts are available only in cases where they represent NPs of generic reference, e.g. *baltasis/ juodasis gandras* 'the white.NOM.SG.M.DEF /black.NOM.SG.M.DEF stork':

(8) *Jam*   *paskambino*   *vienas*
     he.DAT.SG.M.   telephone.3PST   one.NOM.SG.M

     [**garsusis*]   *garsus*   *žurnalistas*
     [famous.NOM.SG.M.DEF]   famous.NOM.SG.M.INDEF   journalist.NOM.SG.[M]

     'He was telephoned by a famous journalist.'[26]

(9) *Ant* *palangės*   *tupėjo*   [**baltoji*]
     on   windowsill.GEN.SG.[F]   sit.3PST   [white.NOM.SG.F.DEF]

     balta   *katė.*
     white.NOM.SG.F.INDEF   cat.NOM.SG.[F]

     'On the windowsill there sat a white cat.'

From recent studies in functional sentence perspective (Mickūnaitė-Griškevičienė 2004), definiteness marking in Lithuanian (Spraunienė 2011) and translation studies (Vaitkutė

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[25] This is an exact translation of the example (6) into Latvian, verified by mother-tongue speakers.

[26] This example, as well as (9), is cited from Spraunienė (2011, 74).

2017), it has become apparent that a number of linguistic strategies are used to convey the definite status of NPs. Certain compensation mechanisms are employed to make up for the absence of (in)definite articles in Lithuanian when translating from e.g. Scandinavian languages. They mostly include the process of addition whereby certain elements are added to an NP to clarify or underline its definite status, e.g. demonstratives, possessives, quantifiers, participles, adjectives and other, as shown in the examples below:

(10[27])	*Förr brukade hon säga att de skulle bo där i hus**et** en dag* [...] house.SG.[NEUTR].DEF	*Anksčiau ji sakydavo, kad juodu vieną dieną apsigyvensią **tuose** **namuose*** that.LOC.PL.M house.LOC.PL.[M]
	'Before she used to say that they would live there in the house one day'	
(11)	*Familj**en** bor i en stor* family.SG.[COMM].DEF *lägenhet vid Vanadisplan.*	*Jų šeima* they.GEN.PL.M family.NOM.SG.[F] *gyvena didžiuliame bute Vanadžio aikštėje.*
	'The family lives in a big apartment on the Vanadis Square.'	

Table 2. Compensation for the absence of the definite article in Lithuanian

To sum up, the definiteness marking system in Lithuanian can be illustrated by the following table:[28]

Prenominal attributes	NPDEF	
Adj	AdjINDEF + N	AdjDEF + N
	sena knyga 'the old book'	*senoji knyga* 'the old book'
Other definite attributes[28]	Det (+AdjINDEF) + N	Det (+AdjDEF) + N
	ta sena knyga 'the/that old book'	*ta senoji knyga* 'the/that old book'

Table. 3 Definiteness marking in Lithuanian

Analysing the Lithuanian material, it can be summarised that the category of definiteness has the following expressions:

1. In an NP with an adjectival modifier, it is marked by the presence of the suffixal ending on the Adj;

2. Otherwise, it is conveyed through usage of definite attributes, incl. demonstratives, possessive genitives and other, as will be outlined in the following sections.

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[27] This example, as well as (11), is taken from Vaitkutė (2017).
[28] The types of definite attributes will be described in detail in section 4.

3. Sometimes, the so-called definiteness effects (Lyons 2003, 227–251) come into play, e.g., mass nouns and plurals as objects of perfective verbs are interpreted as definite (Holvoet & Tamulionienė 2006, 30–32); certain word order models in which the thematic (topicalised) NP gets a definite reading as seen from the functional sentence perspective. Also, according to Lyons, existential sentences, property predication and superlatives, as well as a number of other sentence syntactical constructions are to be treated as definiteness effects.

3 Prenominal attributes

3.1 What they are and how they are organised

The grammatical elements that can precede a noun in Lithuanian and Swedish are articles (only in SW), quantifiers, demonstratives, pronouns, genitives and adjectives[29], e.g.:

(12) *alla   dessa   hans   många   andra   norska*
      all.PL   this.PL   he.GEN.SG   many   other.PL Norwegian.PL

      vänner
      friend.PL.[COMM]
      'all these many other of his Norwegian friends'[30]

(13) *visi   tie   jos*
      all.NOM.PL.M   that.NOM.PL.,M   she.GEN.SG.F

      kiti   lengvi   pinigai
      other.NOM.PL.M easy.NOM.PL.M   money.NOM.PL.[M]
      'all that other easy money of hers'[31]

As Lyons rightly notes, "no investigation into the nature of definiteness can proceed far without consideration of the place of articles and other determiners within noun phrase structure" (Lyons 2003, 41). It is evident that elements comprising a definite NP in any given language come in a particular order (in some languages more rigid, e.g. Scandinavian languages, and in some more liberal, e.g. Baltic languages). A noun can be preceded by certain elements; it can be likewise followed by these. However, in the case of unmarked word order, regular patterns can be found in the linear structure of these elements, e.g. adjectives in the Lithuanian NP are most likely to be found in prenominal position, likewise in Slavonic and Scandinavian languages; in Romance languages, they will be placed postnominally.

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[29]   And other noun or adjective-like elements, e.g. participles, cardinals, ordinals, and certain pronouns.

[30]   This example is from SAG (SAG, Vol 2, 249).

[31]   Adopted from the corpus example *visi tie jos pinigai* 'all that money of hers' and expanded by adding modifiers *kiti* 'other' and *lengvi* 'easy'.

Variation in the placement of prenominal attributes is observed as well. However, some of these elements have a tendency to move and take up different slots in an NP more freely than others, as will be shown. It is obvious that the particular placement of such elements might have implications for the reading of the NP, as well as for the NP structure, e.g. a Swedish NP with the leftmost element being a possessive pronoun allows only one placement for a genitive:

(14) ***hans***   *många*   *nya*   *hästar*   vs
     he.GEN.SG.M   many   new.PL   horse.PL.[COMM]
     'his many new horses'[32]
     *nya hans många hästar
     *många hans nya hästar
     * nya många hans hästar
     *många nya hans hästar

In Lithuanian, more variation is possible, e.g. an NP in the leftmost position containing a collective cardinal number allows variation both in terms of placement of the genitive pronoun *his/her* and in terms of semantic interpretations:

(15) (a) *trejetas*   ***jo***   *draugų*[33]
      threesome.NOM.SG.M   I.GEN.SG.M   friends.GEN.PL.[M]
      'three of his friends'[34]

    (b) ***jo***   *trejetas*   *draugų*
      he.GEN.SG.M   threesome.NOM.SG.[M]   friends.GEN.PL.[M]
      'three of his friends'

    (c) ***jo***   *draugų*   *trejetas*
      he.GEN.SG.M   friends.GEN.PL.[M]   threesome.NOM.SG.[M]
      'three of his friends'

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[32]   This example is taken from SAG (SAG, Vol 3, 5).
[33]   This example already poses a question – what should be considered the head of the NP? Is it *a threesome* or *friends*? I am inclined to think that *friends* should be considered a head because of its rightmost position. Would this then imply that *trejetas jo draugų ≠ jo draugų trejetas* is a separate broad discussion subject; and it will not be taken up in this paper.
[34]   This example is based on the one containing an NP *trejetas mano draugų* 'three of my friends', which I found online *Jau* dabar ***trejetas mano draugų*** *susidomėjo WM Nokiom (ir 925)*...
http://www.mobili.lt/lt/forumas/mobilieji_telefonai/nokia/nokia_lumia_925.html?&psl=5, 2018-10-14. Likewise, I found online structures similar to (15b) and (15c) with different lexemes, however, I chose to use the same lexemes in these examples for the purpose of illustration.

Reading (a) is the most neutral one, while some speakers would consider (b) and (c) possible only in a marked structure as demonstrated below:

(16) **Jos**   *draugių*   *trejetas*   *jau*
    she.GEN.SG.F   friend.GEN.PL.[F]   threesome.NOM.SG.[M]   already

    užsiregistravo   *į*   *komandines*
    register.3PST   to   team.ADJ.ACC.PL.F

    varžybas.   *O*   *jo*[35]   *trejetas*
    competition.ACC.PL.[F]   and   he.GEN.SG.M   threesome.NOM.SG.[M]

    draugų?
    friend.GEN.PL.[M]

    'Three of her girlfriends have already registered for the team competition. What about a threesome of his friends?'[36]

In terms of the possible readings, in (15a) the numeral is the leftmost element quantifying over an NP *his friends*; in (15b) the leftmost element is a possessive specifying an NP *a threesome of friends*; (15c) is the most complicated to interpret, as the rightmost element *threesome* syntactically could be considered the head of the NP with two genitival modifiers.

One could thus say that Swedish has a much more rigid word order when it comes to combinatory variations amongst the prenominal modifiers; but even Lithuanian, with its much freer word order, has its limitations and impossibilities.

It is known that linear relations between components of a syntactic structure are of importance (Haspelmath 1999; Croft 2004; Langacker 2008). Hence, it is the order of linear precedence of noun attributes and the interplay between them that will be closely looked at first and foremost in relation to the Lithuanian NP and its Swedish counterpart, sometimes also English.

3.2 Definite attributes (determiners) and modifiers

Aiming to describe the topology of the definite NP, be it a Scandinavian or a Lithuanian one, we must identify the potential functional positions (slots, fields, types of attributes) that are found in the NP. Examining the Scandinavian models, one can notice that there is clearly a difference between the prenominal attributes in that that even though they all contribute to the definiteness reading of the noun, not all of them make an

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[35]   The genitive in this NP bears the stress.
[36]   I am the author of this example, however, as in (15), usage of similar structures is attested.

NP definite. These attributes can be broadly divided into two groups, based on their function: a) functional modifiers; b) descriptive modifiers (SAG, Vol 3, 4). The so-called functional modifiers are the ones that perform the function of determiners. In Perridon's terminology, they constitute the field of determination (Perridon 1989, 195). In SAG, they are called definite attributes. In CGEL, they are called determiners, dependents that perform the function of a determiner, as opposed to a lexical class of determinatives (CGEL, 330, 355-356), namely those "whose distinctive syntactic properties concerns their association with the determiner function" (CGEL, 355), e.g. English singular noun *book* only becomes an NP if articles *a* or *the* are added to it. The same could be said about its Swedish counterpart *bok*, which in order to become an NP needs to be either *en bok* 'a book' or *boken* 'the book'. Lithuanian, as opposed to English and Swedish, lacks articles. Yet it is not always the case that determinatives perform a determiner function[37]. The CGEL provides a finite list of words which it calls *basic determiners* (CGEL, 356), which includes articles and a number of various types of determinatives (e.g. *this*, *that*, *each*, *all*, cardinal numbers, etc.). In the Swedish tradition these are called *definita attribut* 'definite attributes' (SAG, Vol 3, 13), in Danish, they are called *bestemmere* 'determiners' (GDS, Vol 1, 181). In Norwegian grammars, this lexical class is recognised and called *determinativer* 'determinatives'. They include 5 types of determinatives, namely articles possessives, demonstratives, quantifiers and intensifiers like *selv* 'self' and *egen* 'own' (Norwegian *forsterkende ord*) (NRG, 202; NSF, 29). In grammars of Swedish and Lithuanian, there is not such a tradition to single them out as a lexical class. Therefore I will refer to them respectively as definite attributes (definite articles, demonstratives, quantifiers, possessive-genitives). They all are known to perform determiner function in an NP.

Like SAG, Perridon singles out a special field for quantification, known in SAG as quantitative attributes that follow definite attributes, but precede descriptive attributes. In grammars that acknowledge determinatives as a lexical class, quantifiers of all types are considered to be determinatives. Yet, as it will be shown later, only some quantifiers are determiners, while others behave like adjectival modifiers, assigning cardinal quantitative properties to the head.

Besides definite attributes, there is another group of prenominal attributes that is often described as performing modifier function, describing and specifying the content of the head. In Perridon's terms, they constitute the field of description (Perridon 1989, 195). In SAG, they are called adjectival attributes and include adjectives, participles

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[37] To clarify the difference between the two, it must be said that "while determinatives function most distinctively as determiners in NP structure, most of them are not restricted to that function" (CGEL, 330), e.g. *all* in *all children* is a determiner, but in *all the children* it is a modifier, while *the* functions as a determiner. Likewise, *this* in *this girl* functions as a determiner, but in *She is about this tall* is clearly a modifier (CGEL, 25).

and some types of pronouns (SAG, Vol 3, 13). This group is of significance as it has an important implication for the structure of the Lithuanian NP. This is because definite adjectival forms, traditionally considered to represent canonical modification, perform the function of determiners, in addition to their descriptive function. Also, genitival constructions, widespread in Lithuanian, would fall into this category; more specifically, non-determiner genitives of the type illustrated below would belong to this group, e.g.:

(17) *linksmų*   *plaučių*   *jaunuolis*
      jolly.GEN.PL.M   lung.GEN.PL.[M]   lad.NOM.SG.[M]

      'a jolly lad, a lad with a good sense of humour'

(18) *mano*   *vaikystės*   *draugė*
      I.GEN.SG   childhood.GEN.SG.[F]   friend.NOM.SG.[F]

      'my childhood friend'

The genitives in (17) are non-determiner genitives, in a metaphorical way describing a quality of a young man, viz. having good lungs, i.e., prone to laughter, having a good sense of humour. The genitive in (18) refers to the time frame, i.e. *my childhood friend* is a friend I made in my childhood.

To sum up, in Swedish, the following attributes serve as definite attributes (performing the determiner function): definite articles, both preposed and postposed; demonstratives; possessives and genitives; quantifiers and certain pronouns (e.g. *samma* 'same', *nästa* 'next', etc.) (SAG, Vol 3, 15-43). The modifier function is served by modifier attributes, which include adjectives, participles and some types of pronouns. In Lithuanian, it is demonstratives (incl. the arthroid *tas*, on which see below), possessives and determiner-genitives, quantifiers and definite adjectival modifiers that function as determiners. As previously mentioned, even indefinite adjectival forms can sometimes serve as determiners (see example (22)). This will be discussed in section 5.2.

3.3 Determinatives, determiners and definiteness carriers

It is evident that elements in grammars considered to be determinatives include both markers of definiteness and indefiniteness. As the interest of this paper lies with the expression of definiteness, I will only focus on the determinatives that in their determiner function assign definiteness, viz. determinatives as indefinite articles, also the ones like *some, few, several, any*, etc. will not be looked at here.

What is the relationship between determinatives, determiners and modifiers when we speak about the category of definiteness?

Grammars of the Baltic, Scandinavian and English languages all make a clear distinction between common nouns and proper nouns. This is important as it adds to the understanding of the category of definiteness. The difference between common nouns and proper nouns lies in that the latter have little or no descriptive content (SAG, Vol 2, 9); they denote a category consisting of one individual, as names are prototypically assigned to unique individuals.[38] Common names, in contrast, refer to categories (or types) that include more than one individual member (GDS, Vol 2, 450; Holvoet & Tamulionienė 2006, 12). It is through various processes of individualisation, through modification and quantification that definiteness arises as a multi-layered phenomenon allowing a noun to become a part of a nominal unit, namely an NP that can be used in discourse (GDS, Vol 2,464; Holvoet 2009, 19):

[see Table 4. Stages of an NP modification on page 102].

Also, in languages where the marking of (in)definiteness is obligatory, it is determinatives that turn nominal units into NPs. Determinatives are important in reference assignment, in signalling to the speaker that he/she knows/is able to identify the referent of an NP. However, it is also known that many definite NPs are *non-referential,* e.g. the phrase *the many thousands of people who live and work in a large and congested area*; moreover, even if some processes, like quantification using cardinal numbers, do help out in narrowing down the individual members of a certain category, e.g. *three boys* in the example above, as opposed to having a choice of all the hypothetical boys of the real (or imaginary) world, they do not provide a satisfactory solution to singling out a nominal referent. However, adding, e.g. *all* or *those* in the example above, makes the NP definite.

In the tradition of Cognitive Grammar (CG), this function is described as *grounding*, which "is not a grammatical category (like noun, verb, or preposition). It is rather a semantic function, an aspect of conceptual organization by which an expression qualifies as a nominal[39] […]" (Langacker 2008, 272). Besides making a noun phrase a nominal (or an argument, e.g. a subject or an object), the grounding elements are crucial in singling out a nominal referent; they can act alone as full nominals, e.g.: ***These** are not suitable*; they do not underlie predicate constructions of the type:

(19)   **The politicians who can be bought are **all/most/every/each**.* [40]

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[38]   CGEL makes a distinction between proper nouns and proper names. The main use of proper names is to refer to the particular entities that they name; in this use, they constitute NPs. Proper nouns, on the other hand, are word-level units that belong to the category of noun, e.g. *Zealand* is a proper noun, whereas *New Zealand* is a proper name (CGEL 2002, 516).

[39]   A nominal in the CG tradition refers to what I call an NP in this article.

[40]   This example is taken from Langacker (Langacker 2008, 274).

	Noun*	NP	Quantification	Quantification + modification	Determination + quantification + modification
LT	*berniukas* boy	*berniukas* boy.NOM.SG.[M]	*trys* three *berniukai* boy.NOM.PL.[M]	*trys* three *pavargę,* tired.NOM.PL.M.INDEF *bet* but *laimingi* happy.NOM.PL.M.INDEF *berniukai* boy.NOM.PL.[M]	*tie* *trys* *bet* that.DEM.NOM.PL.M three but *pavargę,* tired.NOM.PL.M.INDEF *laimingi* happy.NOM.PL.M.INDEF *berniukai* boy.NOM.PL.[M]
SW	*pojke* boy	*en* a *pojke* boy.SG.[COMM].INDEF	*tre* three *pojkar* boy.PL.[COMM].INDEF	*tre* three *trötta* tired.PL *men* *lyckliga* but happy.PL *pojkar* boy.PL.[COMM].INDEF	*de* *tre* *trötta* those.DEM.PL three tired.PL *men* *lyckliga* *pojkarna* but happy.PL boy.PL.[COMM].DEF
Translation		'a boy'	'three boys'	'three tired but happy boys'	'those three tired but happy boys'

Table 4. Stages of an NP modification

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* CGEL recognises a category of nominals, an interim category between nouns and NPs, e.g. in the phrase the ***old man*** the highlighted part is considered to be a nominal. These are usually not single words, but expressions, unable to function as arguments on their own.

as opposed to other word-categories, e.g. adjectives:

(20)   *The politicians are corrupt.*

The above examples are important as they reveal the difference between grounding and nongrounding determinatives like quantifiers. Evidently, there is a difference between the universal quantifiers like *all* and *every* and cardinal numbers like *three* in that the constructions of the type *The politicians were three* is grammatical, as opposed to (19).

That is why I propose rather to use the term definiteness carriers to refer to elements that trigger the definite reading of the NP; also, that is why further in my analysis I suggest distinguishing between two fields of quantification, namely, the Q_1 to be assigned to universal quantifiers (definiteness carriers) and Q_2 to cardinal expressions (modifiers specifying the cardinal quantification of the set).

Apart from articles (as described in 4.1), definiteness carriers can combine with one another, and in languages that share adjectival marking of definiteness, they most often precede the noun and the adjectival modifiers (e.g. SW *hela denna osedvanligt sorgliga historia*, LT *visa ši neįprastai liūdna istorija* 'all this unusually sad story'), with one of the two, either a definite attribute or a universal quantifier, usually taking the first position in an NP.

Definite attributes by default trigger definiteness marking on preposed adjectival modifiers in Scandinavian languages, and quite often in Baltic languages (more consistently in Latvian, where definiteness marking is more grammaticalised compared to Lithuanian).

Also, it has to be noted that elements classified as determinatives have a very high usage frequency in languages that have them in their inventory. Articles (both definite and indefinite) are amongst the highest-ranking words in English and Swedish in terms of relative frequency. Also in Lithuanian, based on the data available in the Frequency Dictionary of the Written Lithuanian Language[41] (Utka, 2009), it is evident that demonstratives and other elements qualifying as determinatives rank very high on the frequency list. The list appears to be quite extensive with 12 determiners within the top 100 positions; and 25 determiners within the top 500 positions. It can be observed that demonstrative (deictic) *tas* 'that/the' leads this list being in the fourth position. The dictionary provides no data on the stress pattern. However, Rosinas (1996, 2009) and Tumėnas (1988) state that the unstressed bleached deictic *tas*, also called the arthroid, known for its high frequency (which is re-confirmed here as well) behaves in an article-like function (see section 4.3). One could assume that this high position on the list is due to arthroid usage. Yet, it should be acknowledged that some of these uses might be

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[41]   It is available online at http://donelaitis.vdu.lt/publikacijos/Dazninis_zodynas.pdf.

accounted for as recognitional uses of demonstratives (Diessel 1999, 105–109), that are prenominally used unstressed demonstratives that introduce information that is new in the discourse, yet "old" to the hearer and private, viz., shared between the speaker and the hearer due to common experience, e.g.:

(21)   *I could not sleep last night. **That** dog (next door) kept me awake.* [42]

Yet, it would seem that this use would be more common in the spoken language, and hence its statistical significance in the corpus of written language would be negligible[43]. This, however, remains to be examined.

Summarising, it could be said that even though determinatives often serve as determiners and have interesting features, like high frequency usage, they do not neatly map onto the category of definiteness; not all definite determinatives are definiteness carriers.

4 Definite attributes

4.1 Definite articles

Lyons introduced the terms of *simple definites* for NPs where definiteness arises due to the presence of definite articles vs *complex definites* for NPs whose definiteness "is due to something other than presence or absence of an article" (Lyons 2003, 107). In this regard, Swedish and Lithuanian differ significantly, as Swedish has two definite articles, namely SDEF and PDEF, whereas Lithuanian has none. It is important to highlight that even though Lyons calls the Lithuanian pronominal adjectival morpheme a phrasal clitic article, apart from the fact that this is only historically accurate, it is easy to demonstrate that the function of the definite ending differs from that of the typical article. First of all, it appears on an adjective and therefore contributes to the definiteness reading of an NP that contains an adjectival modifier; whereas the Scandinavian postposed article and the English *the* modify NPs with or, most importantly, without prenominal modifiers. The Swedish free article is only used when an adjectival attribute is present in an NP. Secondly, one of the special features of articles is that they do not combine with other determiners[44], while the Lithuanian pronominal adjectival morpheme does not prevent other determinatives to appear alongside the definite adjectival modifier in an NP. It is the definite article that transforms a nominal in the CGEL tradition[45] (a noun with a

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[42]   This example is from Diessel (Diessel 1999, 106).
[43]   It should be noticed that the recognitional use of *tas* in Lithuanian may have an implication for the structure of the NP in that that it could insert itself into a slot between an adjectival attribute and a noun like in the following example: *Kurį laiką blokuodavau vis naujas **tas** anketas* […] lit. 'For quite some time I kept on blocking ever new those questionnaires'; found online: https://www.vinted.lt/forumai/sirdies-reikalai/1646572-mane-seka-ig., 2018-11-23. This is an unusual position to be occupied by a demonstrative.
[44]   Universal quantifiers behave differently, see 4.2.
[45]   For a definition of a nominal in CGEL, see footnote 41.

prenominal attribute, e.g. *old book*) into a complete NP *the old book*. In Lithuanian, both *sena knyga* 'old book' and *senoji knyga* 'the old.DEF book' are fully realised NPs that could both have a definite reading in particular contexts:

(22) **Sena**   *knyga*   *pirmiausia*   *jam*
old.NOM.SG.F   book.NOM.SG.[F]   first.ADV   he.DAT.SG.M

krito   *į*   *akis.*
fall.3PST   into.PREP   eye.ACC.PL.[F]

'The old book was the first thing he noticed.'[46]

(23) **Senoji**   *knyga*   *pirmiausia*   *jam*
old.NOM.SG.F.DEF   book.NOM.SG.[F]   first.ADV   he.DAT.SG.M

krito   *į*   *akis.*
fall.3PST   into.PREP   eye.ACC.PL.[F]

'The old book was the first thing he noticed.'

In (22), the context allowing the definite reading would be the following: the viewer is in a room full of books, predominantly new. Hence, his eyes focus on the old book, which is an unusual object. The feature *old* singles out the referent. In (23), the usage of the definite form could be explained by an anaphoric function, referring to a particular book that was mentioned in the previous context, e.g. there were two editions of the same book, an old and a new one; and now in a room, the viewer identifies the old edition. This reflects the key notions associated with definiteness, namely *uniqueness* and *familiarity*, described by Lyons (Lyons 2003, 2–12). In (22), the book is identifiable because of its unique feature *old*; whereas in (23) it is implicated that the reader is already familiar with the object due to some previous encounter or knowledge about it. It has to be noted that short adjectival form is the choice to indicate uniqueness, and the long one to indicate familiarity.

The synchronic data shows that there is a need to re-interpret the historical phrasal clitic, since in modern Lithuanian it appears alongside other determinatives, e.g. *ta mano sen**oji** knyga* 'that/this old.DEF book of mine'. The reading of this NP implies several foci of definiteness in the structure of the NP.

Another important remark is on the difference between the two kinds of Scandinavian articles, in particular in Swedish. A Swedish NP that contains prenominal modifiers will have two articles – a PDEF and a SDEF attached to the noun itself and a bound definite article, e.g. **den** gamla bok**en** 'the old book'. In this regards, Danish, is different, as it only has one definite article in an NP with prenominal modifiers, viz. namely the

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46   I am the author of the examples (22) and (23).

free preposed definite article, e.g. ***den gamle bog*** 'the old book'. Yet, the usage of PDEF and SDEF, as it will be shown in section 5.1, also seems to be linked to the concepts of uniqueness and familiarity.

4.2 Quantifiers (universal and other)

Another clearly identifiable group functioning as determiners and exhibiting specific semantic properties is the group of universal quantifiers (LT *bendrumo įvardžiai*[47]) as they quantify over the totality of objects (in a set); with the exception of *half*, which could be described as quantifying over the totality of one of the two halves. The language-specific inventories of universal quantifiers differ; however, some prototypical ones like *all* and *whole* can be identified in English, Lithuanian and Swedish.

Universal quantifiers are peculiar in that they are the only group of determinatives that combine with definite articles, both preceding (the case in Scandinavian languages) and following them, e.g. English *the whole village*, but *all the villagers*; in Scandinavian languages, they can only precede the determinative, e.g, Danish *hele det danske samfund* lit. 'whole the Danish society'; Swedish both *hela den tiden* lit. 'whole the time.DEF' and *hela tiden* lit. 'whole time.DEF' are possible.

The Swedish universal quantifiers are *all* 'all/whole/every', *samtliga* 'all/all together', *hela* 'whole', *halva* 'half', *båda* 'both'. Also *själva* 'self' and sometimes *varje* 'every' are included here (SAG, Vol 3, 24–25). It has to be noted that in Modern Swedish only universal quantifiers can appear in the leftmost position in a definite NP. In older texts, however, all kinds of quantifiers could occupy this position, cf. Old Norse *drap eg þá marga vargana* 'killed I then many wolves.DEF' (Perridon 1989, 197).

Lithuanian *visi* 'all', *visas* 'whole', *kiekvienas* 'every' seem to behave similarly with regard to syntax, e.g. *visus tuos metus* 'all the/those years'. However, if in English and Swedish universal quantifiers show rigidity with regards to their placement – either strictly preceding or strictly following demonstratives, their Lithuanian analogues show more flexibility in combinatorial possibilities, e.g. *visi tie virusai* 'all the/those viruses' and *tie visi virusai* 'the/those all viruses' are equally possible. The frequency of their usage will differ significantly, with the universal quantifiers preceding the arthroid/demonstrative being a clearly predominant type.[48]

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[47]   Rosinas calls them *bendrumo įvardžiai* (Rosinas 1996, 121). However, he later specifies and calls them *egzistavimo ir bendrumo įvardžiai* (Rosinas 1996, 131).

[48]   A simple search in the Corpus of Contemporary Lithuanian Language (tekstynas.vdu.lt) will show the following results: *visi tie* 'all the/those' 1015 counts vs. *tie visi* 'the/those all' 199 counts; *visi šie* 'all the/these' 800 counts vs. šie visi 'the/these all' 28 counts. They are undoubtedly statistically significant.

Since *half* seems to belong this group, what about *one third*? This type of prenominal modifiers is called fractions according to CGEL (CGEL, 434). *half* seems to be a special case amongst fractions in that it can form phrases like *half the village*, whereas **third the village* is impossible. Instead, we have prepositional phrase *one third of the village*, where the noun will be marked with a definite article: *the village*. The situation is similar in Swedish. Meanwhile in Lithuanian, *pusė kaimo* (half the village) and *trečdalis kaimo* (the third of the village) do not differ syntactically. It has to be noted that *pusė*, likewise *trečdalis*, morphologically are nouns, but consistently appear prenominally. To sum this up, we could say that fractions are not typical prenominal modifiers but may marginally be drawn into their orbit.

A different type of quantifiers[49], speaking in semantic terms, is cardinal numbers, the primary function of which is to provide an exact cardinality of objects (the set). In this, they are instrumental in enabling reference identification, yet insufficient to make a referent definite, as described in Table 4. It is often said that appearing as prenominal modifiers, they tend to behave like adjectives. This is, however, not the case since syntactically descriptive adjectives can combine with one another; whereas the cardinal quantification can only be expressed once, and hence, occupy only one position in the prenominal structure of modifiers[50]. Identifying its position on an axis directing from left to right, they will be found following determiners such as articles and universal quantifiers, but preceding other adjectival attributes, e.g. *the three big boys*, *all the four children*, *three big boys*.

An interesting case where both types of quantification, universal and cardinal, are fused, is reflected in the usage of the dual demonstratives in Lithuanian. The duality concept is also reflected in the pronoun *abu* 'both', which is a universal quantifier, and behaves like *visi* 'all'. In Lithuanian, there exists a category of dual demonstratives such as *šiedu* 'these two', *tiedu* 'those two', *aniedu* 'those two', reflecting the trinomial system of Lithuanian with the demonstratives šie and *anie* indicating distance (close vs. far) and *tie* indifferent to the concept of distance[51], e.g.:

(24) *tiedu*　　　　　　　 *solidūs*　　　　　 *pirkėjai*
　　　 those.DEM.NOM.DUAL.M　solid.NOM.PL.M　buyer.NOM.PL.[M]

　　　 'those two solid buyers'

---

[49]　Yet another semantic type of quantification, namely the existential quantification, should be mentioned here. However, as it is closely related with the grammatical marking of indefiniteness, it will not be discussed here. More about the existential quantification can be found in CGEL (CGEL, 358–359).

[50]　This is a very simplified account of the difference between cardinals and adjectives. It seems that cardinals could best be described as being on the borderline between quantifiers and adjectives. This is in need of further exploration.

[51]　According to Rosinas, in Lithuanian, there are only three demonstratives that form a trinomial system, namely šis/šitas, anas and *tas* (Rosinas 1996, 58–59).

Even though there is a strong link between quantification and definiteness, as quantification *per se* is a reference-assigning mechanism, as "it derives from the ability to perceive something as a token, an instance of a class of referents, and the ability to differentiate between one and more than one (i.e. the 'plurality' of) instances of the referent" (Kibort & Corbett, 2008)[52], this does not mean that the category of quantification directly maps onto the category of definiteness. It only does in the case of universal quantifiers.

I will conclude that with regard to quantifiers, two separate positions need to be established in the linear structure of prenominal modifiers, namely that of universal quantifiers (a determiner category) and that of cardinal quantifiers (a modifier-like, reference-narrowing category), with the latter occupying the position to the right of the definite attributes on the left-to-right axis.

4.3 Demonstratives

Yet another type of prenominal attributes that perform the function of determiners in both Lithuanian and Swedish is demonstratives. In SAG, demonstratives are classified as a special type of definite pronouns that obtain their definite function through deictic or anaphoric use (SAG, Vol 2, 255). They help identify a referent that is relatively pronounced in discourse. Often it is through the process of contrasting the referent with other possible referents that their meaning is construed, e.g.:

(25) *Den*   *förklaringen*   *gäller*   *inte*
     the.ART.DEF   explanation.SG.[COMM].DEF   apply.3PRS   not

     denna   *gång.*
     this.DEM.COMM   time.SG.[COMM].INDEF

     'the/that explanation is not valid this time'

Here *this time* clearly refers to a particular time as opposed to many other times when the same explanation was used.

Speaking of their usage in constructions denoting different types of definiteness, it has to be mentioned that demonstratives, as opposed to other definite attributes, cannot be used in associative anaphora, nor in larger-situation uses (a term introduced by Hawkins in 1978 to denote instances where a referent is identified on the basis of a large common context/shared knowledge), e.g.:

(26) *I bought a house. **The** roof was completely new.* vs **I bought a house. **This** roof was completely new.*

(27) ***the** Houses of Parliament* vs *****these** Houses of Parliament*

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52   Cf the distinction between common and proper nouns (see section 4.1).

However, (27) is possible with deictic reference if particular buildings are being singled out in opposition to the previous buildings erected on the site. It is not possible to use the demonstrative to indicate the buildings as an object of general knowledge. This is important as it relates to the two key concepts associated with definiteness, viz. uniqueness and familiarity (see the analysis of examples (22) and (23)). Demonstratives by their deictic nature implicate familiarity (or something that a reader/hearer can familiarise himself/herself with) and not uniqueness.

In Swedish, there are 4 demonstratives: *denna*, *den här* 'this', *den* and *den där* 'that'. In Lithuanian, there are 3 core demonstratives used in definite NPs, namely *šis/šitas* 'this', *anas* 'that' and *tas* 'this/that', e.g. *car* (SW *bil*, LT *mašina*):

	'this car'		'that/the car'	'that car'
SW	*denna bil-ø*	*den här bil-en*	*den bil-en*	*den där bil-en*
LT	*ši/šita mašina*		*ta mašina*	*ana mašina*

Table 2. Demonstratives in Swedish and Lithuanian

In both languages, the demonstratives *this* (SW *den här*, LT *šis/šitas*) and *that* (SW *den där*, LT *anas*) make a distinction between proximal and distal, referring to nearby and remote objects respectively, whereas *den* and *tas* are indifferent to distance. Both Swedish and Lithuanian demonstratives are adjectival.

It has to be noted that *denna* differs from other Swedish demonstratives in that it does not require the suffixed definite article on a noun (SDEF), whereas all three other exhibit Dem+SDEF behaviour, namely the demonstrative will be used alongside the suffixed definite article (see section 2.1 for a detailed account).

If an NP contains a preposed adjectival modifier, both in Swedish and Lithuanian, it will occupy the same slot in an NP structure, namely following the demonstrative. Adjectives cannot precede demonstratives in either language, e.g.:

(28) (a) *denna*   *nya*   *bil*
         this.DEM   new.SG.DEF   car.SG. [COMM].INDEF
         'this new car'

     (b) *den*   *här*   *nya*   *bilen*
         this.DEM   (here).DEM   new.SG.DEF   car.SG.[COMM].DEF
         'this new car'

     (c) **nya*   *denna*   *bil*
         new.SG.DEF   this.DEM   car.SG.[COMM].INDEF

     (d) **nya*   *den*   *här*   *bilen*
         new.SG.DEF   this.DEM   (here).DEM   car.SG.[COMM].DEF

(29) (a) *ši/šita*   *naujoji*   *mašina*
          this.DEM.NOM.SG.F   new.NOM.SG.F.DEF   car.NOM.SG.[F]
          'this new car'

   (b) * *naujoji*   *ši/šita*   *mašina*
          new.NOM.SG.F.DEF   this.DEM.NOM.SG.F   car.NOM.SG. [F]

Finally, a few words need to be said about the Lithuanian *tas,* which some scholars describe as an arthroid, i.e. a unit with function coming close to that of a definite article (Rosinas 1996; Tumėnas 1988). The preposed, unstressed, bleached deictic *tas* differs from a true demonstrative in that that in a prenominal position it has lost its distance-related opposition, it cannot be replaced by a demonstrative šis 'this' or *anas* 'that'; the meaning of an NP would change (Rosinas 1996, 67). Also, its optionality is another criterion separating it from other demonstratives, namely, if *tas* is omitted and the referentiality of the NP does not change, it clearly indicates that it is used as an arthroid (Rosinas 1996, 68). Moreover, unlike demonstratives, the arthroid can be used to express inferential and context-based (general knowledge-induced) definiteness. Yet an another argument for separating the arthroid from true demonstratives is the fact that in recent translation studies (Vaitkutė 2017) it has been proven that while translating from languages with fully grammaticalised definiteness marking, e.g. Swedish, NPs containing definite articles are often translated into Lithuanian as NPs with preposed demonstratives, especially often with the arthroid *tas*. And finally, its exceptionally high frequency (it occupies the fourth place in the Lithuanian word frequency list (Utka 2009, 1)) strengthens this insight.

5. Modifier attributes

5.1 Adjectival attributes in Swedish

As mentioned, both Lithuanian and Swedish share a typologically rare feature, namely adjectival marking of definiteness, whereby the definiteness marker occurs on the adjectival modifier in an NP.

The question whether this type of definiteness marker should be treated as independently performing a determiner function is often raised, most often in the case of the well-studied Scandinavian NPs (Perridon 1989; Delsing 1993; Börjars 1994; Julien 2005; Lohrmann 2011). Even today, conflicting analyses of the role of multiple definiteness exponents in an NP, the adjectival marker in particular, are proposed. As mentioned, much of the research is focused on the interplay between the proposed free and the postposed affixed definiteness articles; and much less on the role of the weak adjectival forms in an NP.

Many of the double-definiteness accounts do not consider the use of the weak (definite) adjectival forms as locus of definiteness but rather as a case of agreement (Börjars 1994; Lyons 1999). SAG claims that definite adjectival forms in most of the cases do not mark definiteness on their own (SAG, Vol 2, 220), but rather agree with the definiteness that is marked in another way elsewhere in an NP; thus allowing for cases where they could carry the [+Def] feature autonomously (SAG, Vol 3, 15). Börjars (1994) argues that a distinction should be made between two terms, namely 'double definiteness' and 'double determination', whereby the term 'double determination' is used when both elements operate independently as semantic determiners; the term 'double definiteness' is used to denote a form of agreement. Weak adjectival forms as definiteness markers can only contribute towards double (or multiple) definiteness, but cannot function as determiners, only as agreement markers. Börjars maintains that a definite adjectival modifier does give rise to multiple definiteness, but on their own they are "unable to determine a nominal in the sense that its presence is not sufficient to allow a nominal to function as a full noun phrase" (Börjars 1994, 222).

However, in some cases the obligatory preposed article co-occurring with an adjectival modifier is omitted. Similarly to Delsing (Delsing 1993, 118–119), Julien says that these occurrences are mostly restricted (Julien 2005, 30–34) to the domains of vocatives, proper names, non-referential NPs and a couple of cases with referential NPs as illustrated below:

(30) *Ta*   **stora**   **kniven***!*
take.IMP   big.SG.DEF   knife.SG.[COMM].DEF
'Take the big knife!'[53]

(31) *Ibland*   *måste*   *jag*   *ha*   *ringen*   *på*
sometimes   must   I   have.INF   ring.SG.[COMM].DEF   on

högra   **handen***.*
right.SG.DEF   hand.SG.[COMM].DEF
'Sometimes I must wear the ring on the right hand.'[54]

In Example (30), the omission of the PDEF implies almost a deictic use, a strong familiarity with a referent. If a PDEF was inserted here, the interpretation would evoke the concept of uniqueness. The example (31) is different in that it exhibits the so-called associative anaphora; a person has one unique right hand, which, once the referent of "I" is established, is implicit.

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[53]   This example is from Delsing (Delsing 1993, 118).
[54]   Examples (31), (32) and (33) are from www.spraakbanken.gu.se, corpora on social media texts.

In the cases where the definite articles PDEF and SDEF are omitted, the question may be posed what licences the definite reading in the two NPs below:

(32) *Slutar*   *auktionen*   *under*   *detta*   *ska*
      end.PRS   auction.SG.[COMM].DEF   below   this.SG.NEUTR   shall

      säljaren   *godkänna*   **högsta**   **bud**.
      seller.SG.[COMM].DEF   approve.INF   highest.SG.DEF   offer.SG.[NEUTR]
      'If the auction finishes below this [amount], the seller shall accept the highest bid.'

(33) *människor*   *som*   *går*   *omkring*   *med*
      people.PL.[COMM].INDEF   who   go.PRS   around   with

      en   *trumma*   *runt*   *halsen,*
      a.ART.INDEF   drum.SG.[COMM].INDEF   round   neck.SG.[COMM].DEF

      en   *flöjt*   *i*   **vänstra**   **hand**[55]
      a.ART.INDEF   flute.SG.[COMM].INDEF   in   left.SG.DEF   hand.SG.[COMM]

      och   *en*   *bibel*   *i*   **högra**
      and   a.ART.INDEF   bible.SG.[COMM].INDEF   in   right.SG.DEF

      hand
      hand.SG.[COMM]

      'people that wander round with a drum around their neck, a flute in their left hand and a bible in their right hand'

It is evident that apart from the definite adjectival form in (32) and (33), no other morphological or syntactic determiner is present; yet definite readings are obtained. Nevertheless, these two examples are different from (30) and (31) in that they resemble the cases of generic definiteness referencing the kind rather than individual objects. It must be noted that example (32) features a superlative. Example (33) features the so-called perspectival pronouns *left* and *right*. All of these fall into the category of called *selectors* (Dahl 2004, 153), which share common semantics, namely they are inherently definite. However, in these and similar constructions (e.g., *nedersta deck* 'bottom deck', *första pris* 'first prize', etc.) it is the AdjDEF that is used with a bare noun rather than an indefinite NP (e.g. *a highest offer*, *a left hand*, etc.) to achieve definite readings due to the concept of uniqueness (the presence of one unique referent) rather than familiarity. However, the formal marking is present as a definite adjectival form.

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[55] The use of indefinite *vänster hand* and *höger hand* would be more neutral here, yet many other examples of the kind *högra/vänstra hand*, *sida* 'side', *fot* 'foot' are to be found mostly in the spoken language domains: weblogs, online forums and social media.

Börjars notes that a small set of adjectives, some of the above-mentioned selectors, seem to function as determiners themselves because a) they behave like syntactic determiners in that they can license an adjective, e.g. *sista misslyckade försöket* 'the last failed attempt', but **misslyckade försöket* ; b) they select the same morphological marking of the head noun as syntactic determiners. Therefore they are no longer functioning as adjectives, but rather as adjectival determiners (Börjars 1994, 224–225).

Adjectival definiteness carriers differ from the determinatives described in section 4 in that that they clearly have descriptive content that modifies the noun (or a noun-like component) in an NP. Also, they can, but not necessarily do, perform a determiner function, and, thus, differ from determinatives in one more respect. As already demonstrated in numerous examples above, adjectival marking of definiteness is fully compatible with other determinatives (obligatory in Scandinavian languages, and optional in Lithuanian). More details about the language-specific usage of definite adjectival forms can be found in sections 2.1 and 2.2. Regardless of whether they do or do not generate the definite reading, they do contribute to narrowing down the referential mass.

It has been shown that omissions of either PDEF or SDEF seem to be linked to definiteness due to familiarity or due to uniqueness. Also, it has been shown that a restricted set of adjectives could be considered to be determiners. Yet, the question could be posed what the function of all other adjectives marked for definiteness in Swedish NPs is. Is it merely agreement?

In an attempt to provide a unified structure analysis for Scandinavian NPs, Lohrmann argues that "the notion of definiteness in Scandinavian DPs is made up of three particular components, which are expressed by three distinct morphemes: discourse reference, identity, and specific reference" (Lohrmann 2011, 124). The suffixed definite article (SDEF) brings about specific reference. Specificity as the content of the SDEF was suggested by Julien (Julien 2015, as cited in Lohrmann 2011), which was then expanded by Lohrmann to mean *referential*, as in "denotation of N + DEF yields a referential reading and that the denotation is identifiable and locatable by the hearer" (Lohrmann 2011, 116), because, as she rightly notes, indefinite NPs can also be *specific*. If a non-specific non-referential reading is intended, the SDEF can be omitted, e.g.:

(34) *Du*   *uppför*   *dig*   *som*   *den*   *värsta*
      you   behave.PRS   yourself   like   the.ART.DEF   worst.DEF

      buse!
      toughie.SG.[COMM]

      'You behave like a worst toughie!'

(35) *De*   *vackra*   *färgerna*   *lyser*   *upp*
      the.ART.DEF.PL   beautiful.PL   colour.PL.[COMM].DEF   brighten.PRS   up

      den   *gråaste*   **dag**.
      the.ART.DEF.SG   greyest.DEF   day.SG.[COMM]

      'The beautiful colours brighten up the greyest day.'

The preposed article PDEF introduces a new, modified[56] discourse referent and the adjectival inflection contributes to identifying members of the AdjDEF + N denotation. Lohrmann claims that multiple definiteness marking in Scandinavian NPs is not a mere agreement phenomenon, but has an interpretive value. This is also valid for weak adjectival inflections. To support her claim, Lohrmann provides several examples. The one below is Swedish (Lohrmann 2011, 118):

(36)[57] (a) *den*   **egna**   *torvan*
              the.DEF.ART   own.SG.DEF   garden.SG.[COMM].DEF
              'one's own plot of land'

     (b) *hans*   *egen-ø*   *hemlighet*
          his   own.SG.COMM.INDEF   secret.SG.[COMM].INDEF
          'his own secret'

     (c) *deras*   *eget-ø*   *fina*
          their   own.SG.NEUTR.INDEF   fine.SG.DEF

          hus
          house.SG.[NEUTR].INDEF
          'their own fine house'

     (d) *hans*   *egna*   *uppträdande*
          his   peculiar.SG.DEF   behaviour.SG.[NEUTR].INDEF
          'his peculiar behaviour'

Example (36a) exhibits the canonical case of a definite NP with 3 definiteness exponents. In example (36b) and (36c) *egen* follows possessives and preserves its strong form, while in (36d) it carries a long form also following a possessive. The explanation is that in (36b) and (36c) it refers directly to the possessor and hence does not need to carry additional information to identify the referent, while in (36d) it refers to the noun

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56   See 2.1, this article is also called the adjectival definite article, as it is only used when an adjectival modifier is inserted in front of a N.

57   I have encountered several examples containing both weak and strong forms of indefinite demonstrative *sådan* 'such', e.g. *det första sådana mötet* 'the first.DEF such.DEF meeting.DEF' and *mitt andra sådant lur-mejl* 'my second.DEF such.INDEF fake mail'. This requires a further analysis.

it describes and helps identify the member of Adj + N denotation, contributing to the reading, namely the possessive *his* scopes over the *peculiar behaviour* (note also a slight difference in the meaning of the adjective[58]).

As has been demonstrated, the function of adjectival attributes in a definite NP, as well as their relation to the category of definiteness, is a complex one. The semantics of the category of definiteness might help to explain some of the irregular patterns (omissions or mismatches between the form and the content) in the marking of the definite Swedish NP, so would the mapping of their intrusion into the domains of the generic use and indefiniteness. Looking at the Lithuanian equivalents of phrases like *left/right hand*, *last attempt*, *first prize*, *the above-mentioned person*, etc., might yield interesting results. This is, however, not within the scope of this paper.

5.2 Adjectival attributes in Lithuanian

In Lithuanian, the adjectival suffixed morpheme is the only dedicated marker of the definite status of an NP (more about this in section 2.2); hence the NPs containing Adj_DEF modifiers are always definite, while the ones with short adjectival forms may be definite or indefinite depending on discourse, as shown in example (22). According to Spraunienė, short adjectival forms are neutral with regard to the definiteness marking of an NP (2008b, 119): Adj_INDEF or Adj_NONDEF = [±DefNP].

She even provides an example where short adjectival forms serve as heads of definite elliptic NPs:

(37) *Turguje*   *pirkau*   **raudoną**   *ir*
      market.LOC.SG.[M]   buy.1PST   red.ACC.SG.F.INDEF   and

      baltą   *rožę.*   **Raudoną**
      white.ACC.SG.F.INDEF   rose.ACC.SG.[F]   red.ACC.SG.F

      pasiliksiu   *sau,*   *o*   **baltą**
      leave.1PST.REFL   myself.DAT.SG.   while   white.ACC.SG.F

      nuvešiu   *mamai.*
      take.1SPT   mum.DAT.SG.[F]

      'I bought a red and a white rose in the marketplace. The red (one) I will keep for myself, while the white (one) I will bring to my mum.'[59]

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[58] It could be argued that this is a lexicalisation of some sort. Also, if in (36c) a modifier *alldeles* 'entirely' is inserted, the form *eget* would change to *egna*.SG.DEF, viz. *deras alldeles egna fina hus* 'their entirely own fine house'. This requires further analysis.

[59] This example is a modified example by Spraunienė (2008b, 118). The original example is: *Turguje pirkau raudoną ir baltą rožę. Raudoną pasisodinsiu savo darželyje, o baltą nuvešiu*

These elliptic NPs in (37) could also be considered nominalisations, and as such they are more likely, but not necessarily, to contain definite adjectival forms. Frequently, in nominalisations long adjectival forms are often encountered in generic uses[60], referring to kinds rather individuals, e.g. *baltoji me*ška lit. 'white.DEF bear' meaning 'polar bear'; *raudonoji arbata* 'red.DEF tea' meaning 'red tea or rooibos'. The example (37) above, however, is a clear case of anaphoric use and the long adjectival forms could as well be expected and employed:

(38) *Turguje*   *pirkau*   **raudoną**   *ir*
      market.LOC.SG.[M]   buy.1PST   red.ACC.SG.F.INDEF   and

      baltą   *rožę.*   **Raudonąją**
      white.ACC.SG.F.INDEF   rose.ACC.SG.[F]   red.ACC.SG.F.DEF

      pasiliksiu   *sau,*   *o*
      leave.1PST.REFL   myself.DAT.SG.   while

      baltąją   *nuvešiu*   *mamai.*
      white.ACC.SG.F.DEF   take.1SPT   mum.DAT.SG.[F]

      'I bought a red and a white rose in the marketplace. The red (one) I will keep for myself, while the white (one) I will bring to my mum.'

Yet, short adjectival forms sometimes may serve in cases of anaphoric definiteness, as illustrated in (37). Such cases, nevertheless, are seldom encountered

It should be emphasized that the main function of adjectival attributes is that of modification, of assigning particular properties to the head. Yet, in Lithuanian, due to the morphological reasons, the adjectival attributes, if marked for definiteness, serve as determiners as well, thus combining the two main functions of attributes.

Lithuanian differs from Swedish in one more aspect, namely in how multiple adjectival attributes can be marked for definiteness in an NP. Apart from very rare cases (see footnote 59, for example), multiple adjectives in Swedish exhibit uniform marking for definiteness, viz. they all are consistently definite. This is not necessarily the case in Lithuanian. Examples containing multiple adjectives are few and difficult to find. Amongst the ones found in the corpus, the pattern below, where the first adjectival attribute is definite, is a predominant one:

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mamai lauktuvių 'I bought a red and a white rose in the marketplace. The red (one) I will plant in my garden, while the white (one) I will take to my mum as a gift'. It must be noted that the example is generated by the author and not found in the corpus.

[60]   Examples of short adjectival forms used in generic NPs are to be found, e.g. *juoda duona* 'black bread' (bread made with flour from rye grain), *geltonas sūris* 'yellow cheese' (a type of fermented cheese, yellow in colour). The topic of nominalisations and generic definiteness is a broad one and deserves a separate study.

(39) ši   ***naujoji***   *svarbi*
     this.NOM.SG.F   new.NOM.SG.F.DEF   important.NOM.SG.F

     užduotis
     task.NOM.SG.[F]

     'this new important task'

(40) ***naujasis***   *sukurtas*   *aromatas*
     new.NOM.SG.M.DEF   created.NOM.SG.M   fragrance.NOM.SG.[M]

     '(the) new created fragrance'[61]

Other similar examples, e.g. *ši naujoji dviguba žmogžudystė* 'this new.DEF double homicide', *aklojo tikrasis nemeluotas šauksmas* lit. 'blind's true.DEF veracious outcry', *tikrasis išlavintas proletariatas* 'the true.DEF educated proletariat' are to be found in the corpus. With or without a definite attribute, as is shown, the cited examples follow the pattern where the first adjectival attribute also seems to be assigning or strengthening the definiteness of the NP, while the second attribute purely modifies the head. If example (40) was to be re-written *naujas sukurtasis aromatas* 'new created.DEF fragrance', the NP would become indefinite with an interpretation of 'a newly created fragrance'.

Thus, in case of multiple adjectival attributes, the ones serving determiner function seem to be found on the left periphery from the head, whereas the modifiers are to be found closer to the head noun. Evidently, examples where multiple adjectival attributes present themselves in uniform usage (e.g. example (48)) are to be found, but they represent little interest for this paper.

5.3 Genitives and possessives

I will use two terms for the possessive constructions, viz. possessives to speak about the pronoun-derived prenominal attributes like *my*, *mine*, *his*, *their*, etc. that most often are considered to serve as determiners; and genitives derived from the genitive case of nouns (or words with noun-like function), e.g. *Peter's*, *man's*, *one'*s, etc. that in the case of Lithuanian (and certain Swedish genitive constructions) often serve as modifiers rather than determiners.

This is a group of prenominal attributes that can, but not necessarily do, act as determiners. Swedish and Lithuanian belong to two different groups, namely, Swedish is a DG[62] language, whereby possessives and genitives occupy the position of a determinative and

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[61] This example was found online: https://www.alio.lt/skelbimai/lancome-la-vie-est-belle-l%E2%80%98eclat-edp-75-ml---kvepalai-moterims/ID58143106.html, 2018-10-15.
[62] DG = determiner genitive; another type of language is known as 'AG' languages, whereby AG = adjectival genitive, e.g. Italian: *il mio sole* 'the my sun' (Lyons 2003, 24, 130–134).

do not combine with the definite articles; Lithuanian is clearly not a DG language as genitives can freely combine with indefiniteness markers without changing the syntactic structure, e.g. *mano pažįstamas* 'my acquintance' vs *vienas toks mano pažįstamas* lit. 'one such acquaintance of mine' meaning 'an acquaintance of mine', which would be the case in English and Swedish, e.g. *my friend*, but *a friend of mine*.

However, as Lyons noticed: "The traditional assumption that possessives are definite determiners, stated without further comment in many descriptive grammars and in much recent theoretical work – presumably because possession is assumed to entail definiteness – is misguided." (Lyons 2003, 24). In Swedish, the so-called *inserted genitives*, *swear genitives*, and *measure genitives* are evidently non-determiner genitives (Koptjevskaja-Tamm 2003, 515-558), e.g.:

(40) *detta*   *tre*   ***timmars***   *skriftliga*   *prov*
      this.DEM.SG.NEUTR   three   hour.GEN.PL   written.DEF   test.SG.[NEUTR]
      'this three-hour long written test'[63]

Moreover, there is a difference between possessive genitives, which usually do function as determiners, and non-determiner genitives that do not necessarily do so[64].

In Swedish, as illustrated by the example below, certain types of possessive constructions have the same distribution and function in the same way as suffixed definite article, namely they are considered to be definite attributes or true determinatives:

(41) a) *Jag*   *ställde*   ***bilen***   *på*
        I   park.PST   car.SG.[COMM].DEF   in

        gatan.
        street.SG.[COMM].DEF
        'I parked the car in the street.' [65]

    b) *Jag*   *ställde*   ***min***   *bil*   *på*
        I   park.PST   my   car.SG.[COMM].INDEF   in

        gatan.
        street.SG.[COMM].DEF
        'I parked my car in the street.'

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[63]   This example is from Koptjevskaja-Tamm (Koptjevskaja-Tamm 2003, 524).
[64]   Lyons speaks of examples like *a woman's drink*, which is structurally ambiguous. Yet, in English, like in Swedish, "a possessive NP, whether itself definite or indefinite, renders its matrix noun phrase definite" (Lyons 2003, 23). Interestingly, in the Swedish corpus based on online blogs (Bloggmix 2008), the examples containing *a + possessive his* are plenty – 590, e.g. *en hans bästa kompis* lit. 'a his best buddy' in *Ringde till en hans bästa kompis* lit. 'I called a his best buddy.'
[65]   This example is taken from Ekerot (Ekerot 2011, 7.3.4).

If no previous context is provided, example (41a) above is clearly a case of inferential definiteness, based on the assumption that the person that has parked the car is the owner of the car, as usually people own and drive cars belonging to them. The Sᴅᴇꜰ helps identify the referent – the driver and, hence, most probably the owner of the car, whereas in (41b) a possessive construction is used, directly pointing out the possessor of the car. So in (41a), a morphological determinative is present, whereas in (41b) a lexical determinative is employed.

The same type of constructions is available in Lithuanian:

(42) (a) *Aš   pasistačiau   automobilį*
        I   park.1ᴘꜱᴛ.ʀᴇꜰʟ   car.ᴀᴄᴄ.ꜱɢ. [ᴍ]

       gatvėje.
       street.ʟᴏᴄ.ꜱɢ.[ꜰ]
       'I parked the car in the street.'

    (b) *Aš   pasistačiau   **savo**   automobilį*
        I   park.1ᴘꜱᴛ.ʀᴇꜰʟ   my   car.ᴀᴄᴄ.ꜱɢ.[ᴍ]

       gatvėje.
       street.ʟᴏᴄ.ꜱɢ.[ꜰ]
       'I parked my car in the street.'

In the case of Lithuanian, the referencing mechanism is further strengthened by the presence of the reflexive verb *pasistatyti* 'to park one's car', which points to the subject, which is also cross-referenced as the owner of the car (object) by the presence of the possessive pronoun.

Possession has a direct link with the animacy hierarchy[66], as a prototypical possessor is always animate. It is evident that *Petro žiedas* 'Peter's ring' differs from *aukso žiedas* lit. 'gold's ring'. In English the latter would be replaced by an adjective *golden*. In Swedish, yet another strategy, viz. compounding, would be used to disable the possessive reading: *en guldring*.

A typologically interesting case in both Swedish and Lithuanian is the insertion of an adjectival modifier into an NP with a possessive:

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[66]   According to Croft, the *Extended Animacy Hierarchy* looks like this: 1ˢᵗ/2ⁿᵈ person pronouns < 3ʳᵈ person pronoun < proper names < human common noun < nonhuman animate common noun < inanimate common noun. (Croft 2004, 130).

(43) *mitt*   *första*   *försök*
      my.GEN.SG.NEUTR   first.DEF   attempt.SG.[NEUTR]

      'my first attempt'

(44) (a) *mano*   *pirmasis*   *bandymas*
        I.GEN.SG.M   first.NOM.SG.DEF   attempt.NOM.SG.[M]

        'my first attempt'

    (b) *pirmasis*   *mano*   *bandymas*
        first.NOM.SG.DEF   my.GEN.SG   attempt.NOM.SG.[M]

        'my first attempt'

Even though on the surface the examples like (44a) *mano pirmasis bandymas* 'my first. DEF attempt' and (44b) *pirmasis mano bandymas* 'first.DEF my attempt' appear to exhibit little difference in terms of semantics, the organisation of the prenominal modifiers, implying different readings of the definiteness of the NP, plays a role. The example (44a) seems to introduce the category of *first attempts*, whereas the (44b) introduces the category of *my attempts*. The reading of (44a) almost implies a previous mentioning of *first attempt*, making this phrase anaphoric-like in terms of the usage of the definite adjectival form, while the (44b) implies that it is probable that there were other *attempts of mine*. Vaičiulytė-Semėnienė (Vaičiulytė-Semėnienė 2006,165, footnote 20), provides a similar analysis of the phrases *mano naujoji suknelė* 'my new.DEF dress' versus *naujoji mano suknelė* 'new.DEF my dress'. This only strengthens the assumption that multiple definiteness carriers mirror the multi-layered in terms of definiteness structure of the NP.

It has to be noted that the following example shows yet another possibility of expression in Swedish:

(45) *det*   *första*   *försöket*   *mitt*
      the.ART.DEF   first.SG.DEF   attempt.SG.[NEUTR].DEF   my.GEN.SG.NEUTR

      'the first attempt (of) mine'

Here the possessive genitive is placed postnominally; hence the slot in the determiner position is occupied by the PDEF, followed by the AdjDEF and SDEF on the noun.

Taking into account the analysis of the Swedish adjectival modifiers in 5.1, as well as Vaičiulytė-Semėnienė's notion of a multi-layered reference-assignment (Vaičiulytė-Semėnienė 2006,162–163), with the leftmost exponent of an NP providing discourse definiteness and those on the right end of the axis closest to the head helping to identify the member(s) of the subset denoted by the modifier + N, we can conclude that the linear positioning of definiteness markers follow some sort of a definiteness hierarchy

where the exponents on the left reflect the discourse-bound definiteness, usually based on familiarity, and those closest to the head have identifiability-based definiteness, associated with the concept of uniqueness.

In conclusion, we may note that there seem to be four major differences in the NP structure between Swedish and Lithuanian, once a genitive construction is introduced into an NP:

1. There are only two ways to express canonical possession, that is, through the use of possessive pronouns and proper nouns or through animate common nouns, since prototypically the semantics of possession require an animate possessor. The constructions with genitives of inanimate common nouns do not express semantic possession, but rather different types of relations, e.g. proprietorship, e.g. *valstybės mi*škas lit. 'state's forest' meaning 'state-owned forest', origin/material, e.g. *aukso žiedas* lit. 'gold's ring' meaning 'golden ring', and other non-anchoring relations.

2. If a possessive pronoun is used, both languages allow two alternatives of expression: 1) a possessive occupying the first slot in the NP and functioning as a determiner (in this case in Swedish, SDEF on the noun is omitted, see (43)); 2) if a possessive genitive is occupying a slot that is not the first in the NP, then the determiner slot retains [+Def] marking either on the adjective (in Lithuanian (44 a) or by introducing both PDEF and SDEF in Swedish (AdjDEF is always maintained, see (45).

3. If a proper noun or an animate common noun is used (replace *my* in (43) and (44) with, e.g. *Peter's*), both Swedish and Lithuanian have rigid structures in which the possessive occupies the first available position and cannot be moved in Swedish (the alternative in (44b) is impossible), whereas in Lithuanian the genitive may remain attached to the noun and the first slot is occupied by AdjDEF.

4. In Lithuanian non-determiner genitives are common; they do not express possession and hence function as modifiers. Even though genitive constructions are used, entirely different structures are employed in Swedish to reflect this, namely compounding and the use of a periphrastic prepositional construction. However, here again in Lithuanian, the genitive remains next to the noun and the first slot is occupied by AdjDEF. One could argue that two variants are available here as well, e.g.: *senosios buto durys* vs *buto senosios durys* 'the old.DEF doors to the apartment' where the genitive *buto* 'apartment' could be placed in front of the adjective, however, this structure should be phonologically marked (stressed) with *buto* stressed and *old* carrying the contrastive stress and implying that there are/were more than one door to the apartment, as opposed to the one with genitive remaining close to the N, which could be viewed as neutral, e.g.:

(46) O   *kur*   *buto*   ***senosios***

      So   where   apartment.GEN.SG.[M]   old.NOM.PL.F.DEF

durys?
doors.NOM.PL.[F]

'So where is the old door to the apartment?'

6 Topology of the definite Lithuanian NP

6.1 Possible formulas for the linear NP structure

As mentioned, the aim of this paper is to examine and describe the linear positional structure of the Lithuanian NPs, a sequence of elements lining up on the left to right axis with the head (in Lithuanian terminology also known as *nucleus*) being the rightmost element.

In a well-known function-oriented Lithuanian grammar (Valeckienė 1998, 118–130), the following structure for the NP is suggested (parenthesis signal that these elements are optional):

> ***NP = (modifiers) + nucleus + (qualifiers)***

Speaking of the modifiers that predominantly appear in the prenominal position, Valeckienė notices that these include lexical classes of words, mostly adjectives and participles, and, to some extent, numerals and pronouns. Modifiers show agreement with the head, whereas qualifiers are governed by the head (Valeckienė 1998, 121). This analysis does not provide a comprehensive description of the line-up of the elements preceding the head.

In the CG, the below formula was suggested to describe the organisation of English nominals (Langacker 2008, 312):

> ***NP = [Grounding [(Modifiers) [Head Noun] (Modifiers)]]***

The term *nominal* in CG referrers to the term *NP* as used in this paper. It is not synonymous with CGEL's *nominal*, an interim category between a noun and an NP (CGEL, 329), as illustrated in Table 4. I find it useful in that that it makes a distinction between the grounding elements and modifiers. It also explains why some elements that in grammars are often attributed to determinatives, e.g. ordinal numbers, are not functioning as definiteness carriers. CG refers to these as nongrounding quantifiers. Speaking about the linear placement of the elements, Langacker says that in many languages, a grounding element is generally the one occupying the leftmost position in the structure

of a nominal. As mentioned in the section on quantifiers 4.2, two separate positions for quantifiers (universal or grounding) and others should be recognised. Moreover, the grounding elements provide the least information about the referent per se; they indicate the discourse status of a referent (Langacker 2008, 275).

From SAG (SAG, Vol 3, 5), the subsequent formula can be retrieved:

$$NP = ((Attr)N / N(Attr)) / ((Attr) + N + (Attr))$$

All of these show great similarity. However, as the main focus of this paper is the prenominal attributes, only the *NP = (Attr)N* will be described here.

In his thorough study of the Swedish NP in relation to reference and definiteness, Perridon suggests the below field model (based on the works of Diderichsen) to describe the linear structure of an NP; it contains only three prenominal slots in an NP in modern Swedish (1989, 201)[67]:

$$(Attr)N = \textit{Field of Determination (Det)} + \textit{Field of Quantification (Qu)} +$$
$$\textit{Field of Description (Descr)}[68] + \textit{Nucleus}$$

As previously mentioned, the number of the fields identified by Perridon (and SAG, Vol 3, 13) need to be further expanded to include the two distinctive fields of quantification, namely that for the universal quantifiers, Q_1, and that for the cardinal quantifiers, Q_2. Also, the field of determination needs to be further specified to reflect the difference between various types of determiner modifiers, to include positions D_1 for definite articles or demonstratives, D_2 for adjectival modifiers, D_3 for genitives, etc. A field M for modifier attributes (should an NP contain multiple modifiers, the number of M positions could be increased, viz. M_1, M_2, etc.) should be next to the head. Also, an additional field, called *peripheral modifier*, PM, needs to be established, to include "external modifiers occurring at the periphery of the NP, mainly in initial position […]" (CGEL, 436), e.g. to accommodate prenominal elements like *even*, *only*, *too*, *such*, etc.

The two examples below prove the potential complexity of the definite NPs with its various prenominal modifiers, modifying the Swedish head *books* and the Lithuanian one *powers*:

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[67] GDS offers yet another, but similar outline, namely 3 slots: 1) the framing slot (DA *rammeplads*, 2) the determiner slot (DA *bestemmer*); 3) the description slot (DA *beskriver*) (GDS, Vol 3, 478).

[68] "Each of these fields may contain syntagms with an internal structure of their own." (Perridon 1989, 201).

(47) *alla*   *dessa*   *hans*   *många*   *andra*   *sådana*
      all.PL   these.PL   he.GEN   many   other.PL   such.PL

      danska   *böcker*
      Danish.PL   book.PL.[COMM]

      'all those his many other such Danish books'[69]

(48) *tos*   *abi*   *slėpingosios*   *ir*
      those.NOM.PL.F   both.NOM.PL.F   mysterious.NOM.PL.F.DEF   and

      galingosios   *žmogaus*   *egzistencijos*
      prevailing.NOM.PL.F.DEF   human.GEN.SG.[M]   existence.GEN.SG.[F]

      jėgos
      powers.NOM.PL.[F]

      'those both mysterious and prevailing powers of human existence'

6.2 Topology of the definite Lithuanian NP

Based on the previous sections, the following positions in the linear structure of the Lithuanian NP have been identified:

1) a peripheral modifier – PM;

2) a universal (grounding) quantifier – Q_1;

3) a first determiner – D_1, containing either a demonstrative (in languages with articles, like Swedish and English, this would be occupied by the definite article in absence of a Dem);

4) a cardinal (nongrounding) quantifier – Q_2;

5) a second determiner – D_2, containing an adjectival modifier with a determiner function;

6) a third determiner – D_3, containing a possessive or a determiner-genitive;

7) a modifier – M, containing modifiers not marked for definiteness (this position is needed to reflect the cases where several adjectival attributes are used in the same NP with different definiteness values).

Reflecting the analysis presented in this paper, the positional structure of the definite Lithuanian NP could best be described in the example below:

[see Table 7. The structure of the definite Lithuanian NP on page 125].

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[69] This example is borrowed from Perridon (1989, 183), who in his turn has borrowed it from Loman (1956).

Abbr.	PM	Q₁	D₁	Q₂	D₂	D₃	M	Head
Description	periph-eral modifier	universal quantifier	demonstra-tive/ definite article	cardinal quanti-fier/ multal	AdjDEF	possessive/ determiner-genitive	modifier	noun/ noun-like word
Example	net	visos	tos	trys	saldžiosios	tėvo	žieminės	kriaušės
Gloss	even	all.NOM.PL.F	that.NOM.PL.F	three	sweet.NOM.PL.F.DEF	father.GEN.SG.[M]	winter.NOM.PL.F	pear.NOM.PL.[F]
Translation					lit. even all those three sweet father's winter pears [did not bring her any pleasure] 'even all those three sweet winter pears of her father's [did not bring her any pleasure]'			

Table 7. The structure of the definite Lithuanian NP

The following rules can describe variation in slot occupancy that is attested:

1. The very first slot in the definite NP is occupied by a peripheral modifier. In its absence, it is the universal quantifiers that take up the first slot.

2. Universal quantifiers are the ones that can occupy the Q_1 slot They can be, but most often are not preceded by other determiners, unless they move to Q_2, as they can freely move between the slots Q_1 and Q_2. Yet, Q_2 is the customary host for other quantifiers, viz. cardinal numbers and multal quantifiers, e.g. *many*, *three*, etc. By contrast, movement in the opposite direction from Q_2 to Q_1, if Q_1 is occupied by a universal quantifier, is impossible, e.g. *visi tie trys berniukai* 'all the three boys' versus **trys tie visi berniukai* 'three the all boys'. However, if a universal quantifier is absent, the traditional occupant of slot Q_2 can move up to Q_1, e.g. *trys šie berniukai* lit. 'three these boys' cf. *šie trys berniukai* 'these three boys' in both Lithuanian and Swedish. If an NP contains an adjective, the adjective will follow both Q_1 and Q_2, e.g. *visi šie trys gerieji vaikai* 'all these three kind children', *trys šie gerieji vaikai* lit. 'three these kind children', *šie trys gerieji vaikai* 'these three kind children', etc. in both Lithuanian and Swedish. A peculiar case in Lithuanian is that of constructions like *tie visi trys komponentai* lit. 'those all three components', where we could claim that the universal quantifier *all* has moved into the Q_2 slot to fuse with the cardinal *three*, in a manner similar to the above-mentioned dual demonstratives in 4.2. The demonstrative *those* remains in the D_1 slot, not preceded by any other elements (see conclusion No 4 below).

3. NPs containing possessives (or determiner-genitives) exhibit most variation between the languages under comparison. Also, their analysis offers most complexities due to the interplay between animacy and possession. With possessives high in animacy, Lithuanian allows variation in the placement of adjectival modifiers, as described in section 5.3., viz. they may precede or follow the possessive as opposed to Swedish, which offers only one possibility: the adjectival modifier must directly follow the genitive.

4. If an NP starts in slot D_1 and it is occupied by a demonstrative, adjectives can only follow the occupants of D_1. The reverse order is impossible in both Lithuanian and Swedish.[70]

5. Once both Q_1 and Q_2 are occupied, all the other determinatives and determiner modifiers can only stand between these and the head of an NP, regardless whether

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[70]   A peculiar case of a demonstrative (recognitional use) that is placed between an adjective and a noun in Lithuanian is illustrated in footnote 44.

the D_1 slot between Q_1 and Q_2 is occupied or not. Starting from D_2 and moving in the direction of the head, the number of slots D may be large but is subject to limitations if the process of referent identification is to be successful.

6. The slot closest to the head is M, containing modifiers – adjectival and non-determiner genitive attributes. The number of M may also be more than one. If a Lithuanian NP contains two or more adjectival attributes with different definiteness marking status, viz. both long and short forms, the short ones will be found closer to the head in their relation to the long ones.

The table below reflects on the variation in slot occupancy in a definite Lithuanian NP: [see Table 8. Variation of the slot occupancy of the definite Lithuanian NP on page 128].

7 Conclusions

1. The structural pattern described in section 6.2 is obviously a simplified attempt at providing a formula that would capture the basic topology of the definite Lithuanian NP. A more detailed and fine-grained analysis needs to be carried out.

2. The cross-linguistic approach has been fruitful in that it has enabled me to identify and outline the potential prenominal attribute positions on a linear axis moving from left to right, from the periphery to the head of an NP.

3. It is the category of definiteness manifesting itself through multiple exponents that dictates the outline of the prenominal attributes and therefore the reading of the NP.

4. Even if Lithuanian NP structure exhibits more freedom of variation amongst the various slots in an NP, there are certain limitations and certain preferences clearly predominate.

5. Definite adjectival modifiers can function as determiners in both Lithuanian and Swedish.

6. Other definite attributes and quantifiers can also assume the function of determiners in an NP. Their *modus operandi* in the reference-assigning process is very similar; and also syntactically they behave similarly.

7. It is through establishing the positions of the most common determiners, quantifiers and modifiers in an NP that the structure of an NP can be described in its entirety.

8. The structure of a definite Lithuanian NP is a multi-layered structure where all the prenominal determiners contribute to the definiteness reading of the NP, with those on the left carrying the most powerful load and having the broadest action scope

PM	(Q_1)	D_1	(Q_2)	D_2	$D_{3(D2+1)}$	$D_{3((D2+1)+1)}$	$D_{4(((D2+1)+1)+1))}$	$D_{x((((D2+1)+1)+1+1+…))))}$	M	Head
										vaikai 'children'
									išdykę 'mischievous'	*vaikai* 'children'
								mažieji 'little.DEF'	*išdykę* 'mischievous'	*vaikai* 'children'
							mažieji 'little.DEF'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
						tie 'that/the'	*mažieji* 'little.DEF'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
					tie 'that/the'	*mažieji* 'little.DEF'	*mano* 'my'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
				mažieji 'little.DEF'	*mano* 'my'	*ištikimosios* 'loyal.DEF'	*vaikystės* 'childhood'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
			abu 'both'	*mažieji* 'little.DEF'	*mano* 'my'	*ištikimosios* 'loyal.DEF'	*vaikystės* 'childhood'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
		tie 'those/the'	*abu* 'both'	*mažieji* 'little.DEF'	*mano* 'my'	*ištikimosios* 'loyal.DEF'	*vaikystės* 'childhood'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
	visi 'all'	*šie* 'these'	*trys* 'three'	*mažieji* 'little.DEF'	*mano* 'my'	*ištikimosios* 'loyal.DEF'	*vaikystės* 'childhood'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'
tik 'only'	*visi* 'all'	*šie* 'these'	*trys* 'three'	*mažieji* 'little.DEF'	*mano* 'my'	*ištikimosios* 'loyal.DEF'	*vaikystės* 'childhood'	*draugės* 'friend's'	*išdykę* 'mischievous'	*vaikai* 'children'

Table 8. Variation in the slot occupancy of the definite Lithuanian NP

in the process of discourse building, and those closest to the noun contributing to the ultimate identification of the referent. In other words, the feature [+Def] may and often is encoded in several loci with different degrees of impact.

9. Moreover, it has to be noted that the structure of the definite Lithuanian NP perfectly reflects the Prepositional Noun Modifier Hierarchy (Croft 2004, 122), with the exception of NRel:

   NNum > NDem > NA > NG > [NRel]

10. The functional differences between the two groups of prenominal attributes (referred to in this paper as definite attributes (determiners) and modifiers), show two different types of definiteness marking, strong and weak, associated either with familiarity or uniqueness, discourse and specificity (referentiality). These differences stand in need of further investigation.

Acknowledgements

Abbreviations

Adj	adjective, adjectival modifier
AdjDEF	definite (long/weak) adjectival form
AdjINDEF	indefinite (short/strong) adjectival form
CG	Cognitive Grammar
CGEL	*The Cambridge Grammar of the English Language* 2002
COMM	common gender, *utrum* in Swedish
DA	Danish
Def	grammatical feature of definiteness
Dem	demonstrative
Det	determiner, definite attribute
DP	determiner phrase
GDS	*Grammatik over det Danske Sprog* 2010
LT	Lithuanian
NEUTR	neuter gender, *neutrum* in Swedish
NO	Norwegian
NP	noun phrase
NPDEF	definite noun phrase

NPINDEF	indefinite noun phrase
NRG	*Norsk referansegrammatik 1997*
NFS	*Norsk som fremmedspråk: Grammatikk 2008*
OBJ	object
PDEF	preposed definite article (in Swedish)
PM	peripheral modifier
PP	prepositional phrase
Q	quantifier
S	subject
SDEF	suffixed definite article (in Swedish)
SAG	*Svenska Akademiens grammatik* 1999
SW	Swedish

Data sources

BNC	The British National Corpus (BYU-BNC), available at https://corpus.byu.edu/bnc/
Dabartinės lietuvių kalbos tekstynas	*Corpus of the Contemporary Lithuanian Language*. 2011. Available at: http://tekstynas.vdu.lt/tekstynas
Danish Language Corpora	*Corpora of the Danish Language*. 2018. Available at: https://korpus.dsl.dk
Språkbanken	*The Swedish Language Bank*. Available at: https://spraakbanken.gu.se; only selected corpora were used – *skönlitteratur* (6 fiction corpora) and *tidningstexter* (37 media text coprora) – 43 out of 237 corpora

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