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ADJECTIVAL DEFINITENESS MARKING IN LITHUANIAN – ONE MORE PUZZLE PIECE: QUALITATIVE ADJECTIVES THAT COULD BUT DO NOT TAKE DEFINITE FORMS

Abstract. This data-driven paper adds to the broader discussion on adjectival definiteness marking and, more specifically, definiteness marking in Lithuanian by providing some insights into why a large group of qualitative adjectives that could, in principle, derive definite (long) forms rarely do so in practice. This group of adjectives is not homogenous but could be divided into a number of rather clearly defined subgroups, based on semantic-pragmatic factors or on functions performed in the NP/ sentence. It will be argued that the inability to establish a category (both taxonomic or *ad hoc*), and hence to assume a morphological definiteness marker, occurs for two reasons: 1) a property denoted by the adjective does not meet the semantic-pragmatic requirements needed for the underlying category; 2) the adjective denotes not a property, but rather something else, e.g., quantification, possession, similarity, ordinal relations, specificity or similar.

Keywords: Lithuanian; adjective; attribute; definite; determiner; modifier; noun phrase; quantifier; prenominal.

1. Introduction

1.1. The data puzzle

Lithuanian exhibits a typologically rare feature, shared with Scandinavian and some Slavic languages, viz. adjectival marking of definiteness, whereby the definiteness marker appears on an adjectival modifier in a noun phrase (NP). Most Lithuanian adjectives¹ have a set of affixal definiteness markers

¹ 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 et al. 2006, 185–187, 245, 260, 367–369, Spraunienė 2008b, 117; Sommer 2018, 157–163). This is discussed in 2.1.

added to the short or strong² forms of adjectives (so-called non-definite forms, agreeing with nouns in case, number and gender) to form paradigms of the so-called long or definite adjectival forms³:

(1) a.	naujas	namas
	new.NOM.SG.M.NON-DEF	house.nom.sg.[m]
	'a new house'	
b.	nauj asis	namas
		1 5 1
	new.NOM.SG.M.DEF	house.nom.sg.[m]

It has been argued that long adjectival forms (LF) always encode definiteness (Spraunienė 2011, 74-76), both on the level of individual reference, e.g., *baltasis katinas* 'the white.DEF cat' and on that of generic use, referencing a kind rather than individual objects, e.g., *baltasis lokys* literally 'the white.DEF bear = polar bear'. The use of both (1a) and (1b) is attested and frequent in both written and spoken Lithuanian. While (1b) will always get a definite reading, (1a) may or may not get a definite reading, depending on the context. Nevertheless, there appears to be a group of adjectives that, even though they may in principle assume definite forms, never or seldom do so in the contemporary Lithuanian language (see Table 1 for zero counts, as well as very low counts of long adjectival forms), e.g., *ivairus* 'various, varied, diverse', panašus 'similar, alike, analogous, resemblant', skirtingas 'different, separate, distinct', nemažas 'considerable, not small', menkas 'insignificant, meagre, poor', reikalingas 'necessary, needed, required', optimalus 'optimal, optimum, superb', gausus 'abundant, ample, bountiful', aiškus 'apparent, evident, transparent', švarus 'clean, pure' and others, e.g.:

 $^{^2}$ In Germanic linguistics the non-definite adjectival forms are traditionally referred to as strong, while in the studies of the Slavic and Baltic languages they are traditionally referred to as short. Correspondingly, the definite adjectival forms are referred to as weak and as long. To sum up, short = strong = non-definite; long = weak = definite.

³ In this paper, I will refer to these two sets of endings, alternatively, as long or definite and short or non-definite to reflect the fact that short forms are neutral with regard to definiteness, as will be explained in the article. I will only refer to the short forms as 'indefinite' when they are used specifically as indefiniteness markers.

(2)	a.	<i>įvairus</i> diverse.nom.sg.m.non-def 'a varied diet"	maistas food.nom.sg.[M]	VS
	b.	* <i>jvairusis⁴</i> diverse.NOM.SG.M.DEF 'the diverse diet"	maistas food.nom.sg.[M]	vs
(3)	a.	<i>menka</i> meagre.NOM.SG.F.NON-DEF 'a meagre benefit'	<i>nauda</i> benefit.nom.sg.[F]	vs
	b.	* <i>menkoji</i> meagre.NOM.SG.F.DEF 'the meagre benefit'	nauda benefit.nom.sg.[F]	

Why do they exhibit this particular behaviour? Do they share other characteristics that allow them to be assigned to a particular group/class of adjectives? Is it a homogeneous group? Does this behaviour signal their peculiar relationship with (in)definiteness? In this article I will suggest that the absence of long adjectival forms in NPs is due to several reasons. For some adjectives, it is their semantic-pragmatic properties that account for the absence of long forms, while for some others, it is their properties, similar to those of determiners and quantifiers, that disable the use of long forms.

This paper is structured as follows. In section 1, the background, data, and method are introduced. Section 2 contains a discussion on two types of Lithuanian adjectives, relational and qualifying, and the implications of these for the paradigms of LF. Section 3 is devoted to the Lithuanian definiteness marking system and the role which the short adjectival modifiers (SF) play in the structure and the interpretation of a noun phrase (NP). Section 4 contains the analysis of the data. Both common properties shared by all adjectives not used in LFs and distinctive properties of individual sub-groups of the selected adjectives are examined, and a classification is proposed based on their semantic-pragmatic and functional properties, following the results of the qualitative analysis. Where relevant, for illustrative purposes, examples of other

 $^{^4}$ Both in (2b) and (3b), the definite forms are attested, yet the NPs in the given examples are not possible.

languages having paradigms of strong and weak adjectival forms, e.g., Swedish, will be given to show the cross-linguistic nature of the phenomenon. Finally, section 5 contains some concluding remarks and prospects for future research.

1.2. Background

In trying to establish the extent of the use of LFs in contemporary Lithuanian, I studied the data of the Frequency Dictionary of the Written Lithuanian Language⁵ (Utka 2009) and compiled a list of the most frequently used adjectives that can take LFs. Under every individual entry published in the Dictionary (henceforth also referred to as FrD), an inventory of paradigm forms with usage frequencies is displayed in descending order. This enabled me to compile a frequency list of the Lithuanian adjectives that can have a paradigm of definite forms. Since the actual usage counts of each paradigmatic form (both long and short) are displayed under each individual entry of an adjective, I was able to calculate and compare the percentage of LF versus SF used for each adjectival entry. Among the 1116 most frequently used adjectives that can have definite forms, 43 had between 0 and 2% of long forms (see Appendix A for the original counts of long forms in FrD, as well as comments on individual entries). In view of the fact that the Dictionary was compiled on the basis of just 1 million morphologically annotated words, I then proceeded to run checks for the singled-out adjectives in the Corpus of the Contemporary Lithuanian Language (CCLL)⁷. In the process it became evident that amongst the 111 most frequently used adjectives, approximately one-third do not appear in their LFs at all (0 instances) or have very few instances of LFs (less than 1%). This was a significant finding. Much has been written on the use of the long adjectival forms as definiteness markers, yet very little data is available⁸ on the absence of long adjectival forms where they are to be expected. The absence of a grammatical phenomenon is as important as its presence.

⁵ It is available online at http://donelaitis.vdu.lt/publikacijos/Dazninis_zodynas.pdf.

⁶ I originally intended to compile a list of the 100 most frequently used adjectives that take long forms, but I realised that adjectives following the 100th example, *sausas* 'dry', display very similar statistics (similar use counts, similar numbers of long/short forms, close to each other in sequence on the list, etc.). Therefore, I decided to include 11 more.

⁷ Accessible online: http://tekstynas.vdu.lt/tekstynas/.

⁸ An article by Šereikaitė on strong and weak definites in Lithuanian slightly touches upon this question (Šereikaitė 2019).

The aim of this data-driven paper is to closely examine the list of Lithuanian adjectives that do not show long forms, though these could in principle be derived, and to seek an explanation for this phenomenon.

1.3. Data and method

In the Frequency Dictionary, having identified adjectives that take less than 2% of LFs (all these cases included actual counts between 0 and 2 of long forms), I ran checks on these adjectives in the CCLL. I searched for the paradigms of both short and long forms and then counted the percentage of long forms. A few adjectives, e.g., *sunkus* 'heavy, difficult, hard', *puikus* 'great, excellent, fine', *ramus* 'calm, peaceful, tranquil', etc., were removed from the final shortlist because they had a higher count of LFs in the corpus than in the Frequency Dictionary (above 1%, see Appendix A for statistics and comments on individual adjectives).

While working with the data from the CCLL, the following three major issues had to be dealt with:

1) All the searches had to be done manually, for each form of both short and long paradigms identified; the data extracted from the CCLL was not annotated, hence it contained a high number of homonyms in the paradigms of SFs, e.g., the results for the short form paradigm of the adjective *vertas* 'worth/worthy/deserving/valuable' (total count 36163), contained the following homonyms:

- vertai (ADVB) $\neq vertai$ (ADJ, DAT.SG.F) 77 instances;
- *verta* (ADJ, NEUTER) \neq *verta* (ADJ, NOM.SG.F) 9788 instances;
- *vertus* (VERB, GER.PST) ≠ *vertus* (ADJ, ACC.PL.M) 19441 instances.

Not all the adjectives had so many homonyms as the examples above. However, most of them did have an adverbial form homonymous with the dative singular feminine.

2) Since it was physically impossible to fine-tune data because of the high numbers and lack of annotation, I chose to remove the counts of homonymous forms from the short form paradigms, e.g., the adjusted overall number of instances of the adjective *vertas* (above) was 6857. As the goal was to identify the percentage of LFs used, the logic behind removing the counts of homonyms that could not be dealt with manually due to high counts was that it would potentially increase the percentage of LFs (as the total count of short ones would decrease, the total count of the long ones would automatically increase, increasing the chance of them being removed from the list of the atypically behaving adjectives, viz., not assuming LFs

while being capable). Therefore, those adjectives that still showed a very low percentage of LFs would be of significance.

3) With the aim of assessing the paradigms of LFs, lists of collocations of each lexeme had to be produced in order to eliminate the counts of nominalisations and terminology-based uses, as it is well-known from the literature that the long forms of qualitative adjectives⁹ act as noun-replacements in nominalisations (Mikulskas 2006, 59–60) and are also used in terminology, viz., in NPs containing modifying adjectives, e.g., in linguistics, *konkretieji daiktavardžiai* 'concrete.DEF nouns', in maths, *normalusis skirstinys* 'normal.DEF distribution' or in geometry, *panašieji trikampiai* 'similar.DEF triangles' (more about these phenomena in 2.3, see Appendix B for a sample of collocation lists).

To sum up, two types of data manipulation were carried out, viz., removal of homonymous forms from the paradigms of SFs; and removal of the counts of nominalisations and terminology-based uses from the counts of the paradigms of LFs.

Finally, two additional adjectives, even though they had more than 2% of long forms in the original FrD list, were included, viz., *individualus* 'individual, separate, distinctive, special' (total count in FrD – 5 or 3.16% of long forms) and *paprastas* 'simple, ordinary, normal, average' (the total FrD – 17 or 6.42% of long forms). This was done because of: a) their relatively high ranks in FrD; b) their semantic similarity to other adjectives in the list, e.g., *individualus* 'individual/distinctive' \approx *atskiras* 'separte/distinct/individual', *paprastas* 'simple, ordinary' \approx *normalus* 'normal'/*vidutinis* 'average'; c) an intuition that the higher count of LFs in FrD would be the result of their frequent use in terminology. Also, similarly to a few other adjectives on the shortlist that included antonym pairs, e.g., *menkas* 'meagre' vs *gausus* 'abundant', *panašus* 'similar' vs *skirtingas* 'different', *paprastas* 'simple' would pair up with *sudėtingas* 'complex'.

The final empirically observed patterns of the FrD and CCLL combined are presented in this table, arranged alphabetically:

⁹ Also, ordinal numbers, participles, and some pronouns. See Footnote no. 1.

No	Adjective	Translation	FrD – count of long	CCLL - count of short (adjust- ed)	CCLL - count of long (raw)	CCLL - count of long (adjust- ed)	CCLL – % of long
1	aiškus	clear/understandable/ explicit/evident	0	14828	27	5	0.03
2	atskiras	sundry/separate/indi- vidual/special/ distinct/detached	2	31971	695	20	0.06
3	būdingas	typical/characteristic/ specific	2	23616	74	23	0.10
4	dažnas	frequent/habitual/ periodic/repeated	0	6539	7	3	0.05
5	galutinis	final/ultimate/terminal	0	10964	4	4	0.04
6	gausus	abundant/numerous/ plentiful/ample/ bountiful	0	8190	8	8	0.10
7	įdomus	interesting/exciting/ entertaining	0	15919	70	23	0.14
8	individu- alus	individual/separate/ distinctive/special	5	15169	647	69	0.44
9	įvairus	various/varied/miscel- laneous	0	83278	17	15	0.02
10	konkretus	concrete/particular/ specific	0	26824	127	36	0.13
11	menkas	meagre/insignificant/ poor	0	7135	10	8	0.11
12	neaiškus	unclear/uncertain/ obscure/vague/indis- tinct	0	5476	9	2	0.04
13	nemažas	considerable/not small	0	12852	0	0	0.00
14	normalus	normal/regular/ordi- nary/average	0	11174	120	16	0.14
15	optimalus	optimal/optimum/su- perb/top-notch	0	2585	4	3	0.12

Table 1. The alphabetical shortlist of adjectives with a less than 1% of use of long forms

No	Adjective	Translation	FrD – count of long	CCLL – count of short (adjust– ed)	CCLL - count of long (raw)	CCLL - count of long (adjust- ed)	CCLL - % of long
16	panašus	similar/like/alike/ analogous/resemblant	0	48269	7	1	0.002
17	paprastas	simple/ordinary/nor- mal/average	17	13730	1490	100	0.72
18	patogus	convenient/comfort- able/handy	0	3977	7	2	0.05
19	privatus	private/personal/own/ proprietary/individual	1	21997	126	25	0.12
20	reikalingas	needed/required/ necessary/requisite	0	25876	17	7	0.03
21	reikšmingas	significant/meaningful/ important/weighty	0	8238	40	40	0.48
22	ryškus	bright/stark	1	6778	44	38	0.56
23	skirtingas	different/unlike/sepa- rate/distinct/diverse	0	30471	4	1	0.003
24	sudėtingas	complex/complicated/ multiplex/elaborate	0	11123	39	20	0.18
25	švarus	clean/pure/clear/fresh/ immaculate	0	6358	59	41	0.64
26	tolesnis	further/subsequent/ successive	1	10592	14	14	0.13
27	vertas	worth/worthy/deserv- ing/valuable	0	6857	27	2	0.03
28	vidutinis	average/medium/mid- dle/moderate/normal	2	22517	175	21	0.09
29	vienodas	uniform/equal/same/ homogeneous/like	0	9551	0	0	0.00
30	visiškas	complete/total/full/ab- solute/superior/superb	0	9677	82	3	0.03

As can be seen, all the adjectives in the table show a less than 1% use of LFs. Their values differ between 0% (the lowest) and 0.73% (the highest value). This is statistically significant.

2. Lithuanian adjectives and their paradigms of long forms

As mentioned in 1.1, only qualitative adjectives have paradigms of definite forms. This fact deserves a few remarks, as I believe this difference is essential in understanding the use of long adjectival forms in Lithuanian.

2.1. Relation versus property

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In descriptive grammars of Lithuanian, adjectives are defined as a separate part of speech consisting of two different types, viz., *qualitative* adjectives and *relational* adjectives. While both groups denote properties, the distinction between the two is based on semantic and morphological differences. The qualitative adjectives denote properties "directly by their lexical meaning" (Ambrazas et al. 2006, 134), while the relational adjectives denote properties arising "through their relation to a basic word" (ibid.). In other words, relational adjectives express relation to corresponding nouns. Morphologically, this makes relational adjectives mostly derivatives, while qualitative adjectives are primary words (root-based):

(4)	a.	<i>balt-as</i> white.NOM.SG.M 'white'	<i>balt-a</i> white.NOM.SG.F		
	b.	auks-inis golden.noм.sg.м ʻgolden'	auks-inė golden.NOM.SG.F	cf.	auks-as gold.nom.sg.[M] 'gold'

Relational adjectives denote a property arising in relation to another object or occurrence, as illustrated above *auksinis* \rightarrow 'of gold' (Paulauskienė 1994, 175). They often indicate the material from which the modified object is made, or the purpose of the object, the suitability of the object, etc. They denote objective reality-based qualities that do not change, e.g., *beržinės malkos* 'birch firewood', *keramikinės plytelės* 'ceramic tiles', *pernykščiai obuoliai* 'last year's apples'. Most relational adjectives are formed with the aid of the suffix -*inis*, which is a very productive pattern to replace the use of the non-determiner genitives¹⁰ (Kniūkšta 1976, 3) with adjectives:

 $^{^{10}}$ More about genitives and possessives in the Lithuanian NP in Trakymaitė (2018, 117–122).

(5)	<i>medžio</i> wood.gen.sg.[m]		stalas table.nom.sg.[м]	cf.
	med-inis wooden.NOM.SG.M 'table (made) of wood' $[N \rightarrow Adj]$	\rightarrow	<i>stalas</i> table.nom.sg.[M] 'wooden table'	
(6)	darbo work.gen.sg.[m]		<i>drabužiai</i> clothing.Nom.pl.[M]	cf.
	darbiniai work.NOM.PL.M 'work (N) clothing' $[N \rightarrow Adj]$	\rightarrow	<i>drabužiai</i> clothing.NOM.PL.[M] 'work (Adj) clothing'	

To sum up, as the name implies, relational adjectives characterise a relation; and through it they imply an association with classes of objects, e.g., *medinis* 'wooden' \rightarrow belonging to a class of objects made of wood; *mokyklinis* 'school' (e.g., mokyklinis autobusas 'school bus') \rightarrow belonging to a class of objects related to school, etc. This explains the lack of gradation and scalarity. Also, once attributed to a certain class denoted by a relational adjective, an object acquires a permanent property, e.g., work clothing (*darbiniai drabužiai*) always refers to a specific class/type of clothing worn for work as opposed to, e.g., party wear (šventiniai drabužiai), while white clothing (qualitative adjective) can go grey/yellow/dirty over time; it is a matter of perception. This, in the case of relational adjectives, renders category marking by means of definite forms redundant (*darbinieji drabužiai), while for qualitative adjectives morphological marking remains the preferred mode of marking a taxonomic or *ad hoc* category, e.g., the white clothing (*baltieji drabužiai*) as opposed to the coloured clothing (spalvotieji drabužiai). It could also be said that qualitative adjectives reflect human perception, while relational adjectives are knowledge-based.

2.2. Establishing a category (classifying adjectives)

As mentioned above, the ability to establish a category (based on a wellestablished taxonomy or *ad hoc*) is an inherent property of long adjectival forms in Lithuanian. This reflects the fact that "the definite adjectival form can only be used in Lithuanian if the modified NP can yield a definite interpretation either on the level of individual or categorical (taxonomic reference)" (Spraunienė 2011, 12).

Rutkowski and Progovac state that classifying adjectives differ from attributive (or qualifying) ones in that "they do not merely describe a property of the entity denoted by the noun, but categorise that entity as belonging to a certain class/type" (Rutkowski, Progovac 2006, 265), hence *de facto* imply a definite interpretation on the level of categorical or taxonomic definiteness. It is important to highlight that a classifying adjective serves as a restrictive modifier since it limits the denotation of the noun (ibid.). Based on this, I would draw a parallel with the relational adjectives and say that the latter denote objects as attributed to a certain class/type, i.e., a wooden spoon cannot be plastic but can be old, while an old spoon can be either wooden or plastic¹¹. Therefore, morphological marking of these adjectives for definiteness is redundant and hence non-existent. In the case of qualifying adjectives, on the other hand, we need tools for disambiguating the interpretation of contextual uses of NPs containing these adjectives to see whether they are restrictive attributes. Subsequently, using a LF would imply this either on the level of the individual (context-based, ad hoc taxonomy) or the categorical (generic/taxonomic level).

While taxonomy or generic definiteness is a familiar term (*žalioji arbata* 'green.DEF tea', a kind reference where the adjective is classifying vs *žalioji suknelė* 'green.DEF dress', a context-based reference where the adjective is qualitative) (Rutkowski, Progovac 2006), the term 'ad hoc category' requires an explanation. An ad hoc category is a pragmatic category with an overt linguistic encoding constructed instantaneously to achieve communication goals. It is not available as a structure in long-term memory, it is highly context-dependent and based on an exemplar. Yet, the category itself is more relevant in discourse than the mentioned exemplar. The ad hoc categories do not appear with ready-made linguistic labels, but rather by means of complex expressions, e.g., things to do on a rainy Sunday afternoon (Mauri 2014).

Speaking of categorisation, as in establishing *ad hoc* categories, we evoke the concept of inclusiveness, viz., we assign a subject/object to a category based on particular properties and ascribe those properties to all those belonging to the same category inclusively, e.g.:

¹¹ medinis šaukštas 'wooden spoon' \rightarrow [classifying]; medinis šaukštas 'wooden spoon' \rightarrow ? [qualifying].

(7) Tikrai nesu iš [tų]¹² rūpestingųjų tėvų, kurie niekada nepamiršta vaikams sudėti priešpiečių dėžutės.

'I am definitely not one of [those] caring. DEF parents who never forget to pack a lunch box for their kids.'

In (7), the *ad hoc* category of *caring parents who never forget to pack a lunch box for their kids* is established by ascribing 2 properties to the referentially heterogeneous group: 1) being caring; 2) always performing the duty of packing lunches for their kids.

Inclusiveness is also known to be a semantic feature attributed to the category of definiteness, especially when dealing with plural and mass NPs. The inclusiveness condition entails "the reference to the totality of the objects or mass in the context which satisfy the description" (Lyons 2003, 11). Moreover, in case of a singular NP, "uniqueness can be assimilated to inclusiveness" because there is only one object that satisfies the description used (ibid.), e.g.:

(8) The winner of the 17th series of The Voice is to be announced tonight.

It is obvious that there can be only one winner of the TV singing completion. Even though the NP is non-referential, it is nevertheless definite because the condition of inclusiveness is met. This is an important concept for Lithuanian as the difference between the use of long and short forms in case of nominalisations can be explained by the notion of maximal inclusivity (see 2.3 for detailed discussion), e.g.:

- a. *alkani žmonės* 'hungry.NON-DEF people' → some hungry people/the hungry people (if used anaphorically) vs
 - b. *alkanieji* 'hungry.DEF [ones]' \rightarrow ALL those who are hungry

Recently, the terms 'weak definites' vs 'strong definites' have been applied to the use of short and long adjectival forms in Lithuanian NPs (Šereikaitė 2019). The notions of *weak vs strong definites* were proposed by Florian Schwarz in 2009 based on his analysis of definite articles in German and Germanic dialects (Schwarz 2009). Weak definites are referential expressions "that presuppose that there is a unique entity meeting the description of

¹² This demonstrative here is optional, can be omitted.

the noun phrase", whereas strong definites "involve an additional anaphoric component, captured by a (pronoun-like) index introduced as a syntactic argument of the strong article" (Schwarz 2019, 11). The concept of uniqueness encoded by weak articles (or short adjectival forms for Lithuanian) is contrasted with the concept of anaphoricity (familiarity) encoded by strong articles (long adjectival forms for Lithuanian). These notions are explored in the article. Ultimately, both uniqueness and familiarity contribute to achieving the inclusiveness and identifiability needed for grasping the notion of definiteness, which may differ in their linguistic expressions.

2.3. Other instances of long form uses: nominalisations, terminology, NPs with the emphatic pronoun *pats* 'self"¹³

Besides dominating in the nominalised uses, the long forms of adjectives are compulsory in terminology, where a term comprises an NP containing a modifying adjective. Their uses in such instances are taxonomic¹⁴. They are used in terms in all fields of science, e.g., botany, biology, chemistry, medicine, technology, etc., as modifiers to nouns, establishing kind reference, e.g.:

(10) *paprastieji spuogai* (med.) – 'ordinary.DEF acne' – Lat. Acne vulgaris (in medicine)

(11) atskiroji nuomonė (jur.) – 'dissenting.DEF opinion' (in law)

(12) *individualusis akcizas* – 'personal.DEF excise duty' (in finance)

This is based on the notion that long forms in an NP establish a category, a reference to the kind, viz., an NP with generic reference, as demonstrated in (10) - (12). Yet, as Holvoet and Spraunienė rightfully notice, "if a combination of adjective and noun does not form a unitary concept referring to a more or less established kind or type of individual, the possibility of using definite adjectives in generic and indefinite contexts is lost in Lithuanian" (Holvoet, Spraunienė 2012, 51). They use the concept of *šaltas maistas* 'cold.NON-DEF food/meal' to illustrate this. The concept of *hot* vs *cold meal* is rather well-established. Yet, in Lithuanian, the taxonomic NP *šaltasis maistas*

¹³ In Lithuanian, this pronoun is multifunctional, exhibits a peculiar morphosyntactic behaviour and consequently deserves special attention and analysis.

¹⁴ Cases where an adjective and a noun form a unitary concept referring to a kind, a class, or a type (Spraunienė 2011).

'cold.DEF food/meal' is impossible due to the lack of conceptual prominence of this *ad hoc* category (ibid., 51–52). On the other hand, *šaltoji kava* 'cold. DEF coffee', referring to the Italian-style *frappé coffee* seems to be functional and unitary enough to be used as a definite generic.

While working through the lists of collocations of the selected adjectives, I came across numerous dubious examples of terminology-like use of long forms in NPs as they included several instances of uses, e.g.:

- (13) *būdingieji bruožai* 'characteristic.DEF features'
- (14) *idomiosios užduotys* 'interesting.DEF tasks'
- (15) *vidutinioji karta* 'middle.DEF generation'
- (16) normalieji mokiniai 'ordinary.DEF pupils' (cf. normaliosios mokyklos 'ordinary.DEF schools', as opposed to specialiosios mokyklos 'special.DEF schools', as in schools for children with special needs)

They were all represented by numerous counts proving their relatively frequent use and formed seemingly unitary concepts, hence I consider them to be cases of generic definiteness¹⁵. Similarly, there were cases of adjectives where nominalised uses were prevalent, e.g. *skirtingasis* 'different/distinct.DEF', where out of 4 counts, 3 were nominalisations; *reikalingasis* 'needful.DEF' as in *pagalbos reikalingieji* 'those needful.DEF of help', where out of 17 counts, 10 were nominalisations; and *vertieji* 'worthy.DEF; as in *vertieji valdyti* 'those worthy of rule', where out of 27 counts, 25 were nominalisations. Most nominalisations occur predominantly in the plural. As Mikulskas notes, the bare use of long adjectival forms in the plural could be considered definite NPs *per se*, as the referents they denote are a well-defined group of people due to the inclusiveness condition being satisfied (Mikulskas 2006, 60). The condition of inclusiveness foresees "the reference to the totality of the objects or mass in the context which satisfy the description" (Lyons 2003, 11). Mikulskas further infers that this inclusive definiteness

¹⁵ In this paper, I considered them to be cases of generic definiteness for purely pragmatic reasons, in order to deal with high numbers that needed to be assessed manually. The general rule was that if a collocation was repeated twice or more, it was considered to be a case of generic definiteness. I am aware of the limitations of this approach.

in cases of long-form nominalisations is *inherited* from the corresponding complex NPs (ibid), e.g., *pagalbos reikalingi žmonės* 'people needful.NON-DEF of help' = 'those who are needful of help' vs. *pagalbos reikalingieji* 'those needful.DEF of help' = 'ALL those who are needful of help'. He considers such nominalisations, the characterising feature of which is the notion of the maximal inclusivity (note the inserted ALL), to be elliptical structures. Yet, both nominalisations and term-like nominals are triggered by the same semantic mechanism, viz., the use of long adjectival forms as modifiers in nominals licenses the establishment of categories (both singular and plural), that can and often do become term-like phrases, independent lexical units with established meanings.

However interesting and worth analysing, these three types of uses of long adjectival forms belong to the periphery of the definiteness phenomenon. These uses have been disregarded and eliminated from the data used in this article and will not be further discussed, apart from the discussion concerning the semantics of definiteness.

A third type of construction containing long adjectival modifiers needs to be discussed here as it also presents a special type of use of long forms, namely, in adjectivally modified NPs containing a pronominal intensifier *pats*. This type of use corresponds to the superlative constructions in gradation by specifying that this uniqueness/inclusiveness is based on the said quality to a higher degree than all the others, e.g.: *būdingieji* 'typical.DEF' vs *būdingiausi* 'typical.SUPL' or *jvairiosios* 'various.DEF' vs *jvairiausios* 'various.SUPL' (Paulauskienė 1994, 232):

(17)	patys	būdingie ji	raštai
	self.NOM.PL.M	typical.nom.pl.m.def	pattern.NOM.PL.[M]
'the most typical patterns'			

(18)	pačios	įvair iosios	priešpriešos
	self.nom.pl.f	various.NOM.PL.DEF	contraditction.NOM.PL.[F]

Very few examples of this type were encountered in the data. One interesting case is the below example, where the long adjectival form *jvairioji* seems to be denoting the property of the superlative degree without the intensifier pronoun, as in examples (17) - (18), e.g.:

(19)	Sostinės	<i>gatvė</i> s	<i>ir</i>	s <i>kverai</i>
	capital.gen.sf.[F]	street.NOM.PL.[F]	and	square.nom.pl.[M]
	<i>mirga</i> flash.3.prs	<i>įvairiosiomis</i> various.INSTR.PL.F.	DEF	<i>reklamomis</i> . advertisement.INSTR.PL.[F]

'The streets and the squares of the capital flash with the widest variety of ads.'

These examples, though very few, were included in the statistics of the data presented in this article because they resemble the construction illustrated by (17) and (18) except for the absence of *pats*. I think this is the same construction.

3. Uses of short adjectival forms

3.1. Short adjectival forms in the definiteness marking system

A few words need to be said about the short adjectival forms and their place in the definiteness marking system of a Lithuanian NP. A Lithuanian NP can be marked for definiteness in the following ways:

1. In an NP with an adjectival modifier, it is marked by the presence of the special suffix on the adjective.

2. Otherwise, it is conveyed through the use of definite attributes with or without an attributive adjective, incl. demonstratives, possessives and determiner-genitives¹⁶, as well as universal quantifiers, including fractions.

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, property predication and superlatives, as well as several other syntactical constructions, are to be treated as definiteness effects.

The above can be summarised in the following table:

¹⁶ In Lithuanian, there are two types of genitive constructions, viz., determinergenitives and non-determiner-genitives. A detailed account of possessives, determinergenitives and non-determiner genitives is offered in Trakymaitė (2018, 117–122). See also Koptjevskaja-Tamm (2003).

NPDEF		
Adjnon-def + N	Adjdef +N	
balta katė	balt oji katė	
'the white cat'	'the white cat'	
Det (+Adjnon-def)+ N	Det (+Adjdef)+N	
ta balta katė	ta balt oji katė	
'the/that white cat'	'the/that white cat'	
	AdjNON-DEF + N balta katė 'the white cat' Det (+AdjNON-DEF)+ N ta balta katė	

Table 2. Definiteness marking in Lithuanian

As shown here, SFs may, but do not necessarily, get a definite reading. Spraunienė (2011, 4) and Šereikaitė (2019, 97) both note that it is only short adjectival forms that can introduce a new discourse referent, which is a function typically attributed to indefinite markers; the long forms seem to be impossible in this context, e.g.:

(20)	Ant on	<i>palangė</i> s windowsill.gen.se	G.[F]	<i>tupėjo</i> sit.3pst	[* <i>baltoji]</i> [white.nom.sg.f.def]
	<i>balta</i> [white.nom	.SG.F.INDEF]	<i>katė</i> . cat.noм.	SG.[F]	
	'On the wi	ndowsill there sat	a white c	at.'17	

It has been argued that anaphoric definiteness, known as the only type of linguistic definiteness, where the referent is to be found in the linguistic, rather than the extralinguistic, context (Lyons 2003, 158), is considered to represent strong definiteness, as opposed to weak definiteness associated with the notion of uniqueness (Schwarz 2009, 2019) (see 2.2). The subsequent examples will provide a context for the anaphoric use, in which both long and short forms are eligible:

(21) Ant palangės tupėjo dvi katės, juoda [*juodoji] ir balta [*baltoji]. Pamačiusi mane, juoda/juodoji nušoko žemėn, o balta/baltoji liko tupėti.
'On the windowsill there sat two cats, a black one and a white one. Upon seeing me, the black one jumped down, whereas the white one remained [on the windowsill].'

 $^{^{17}}$ This example is cited from Spraunienė (2011, 74).

Further, Šereikaitė says that "nominals with short form adjectives occur in indefinite environments. In contrast, the presence of a long adjective in nominal expressions is incompatible with an indefinite context [...]" (Šereikaitė 2019, 98). Similar types of anaphoric constructions containing long adjectival forms and associated with strong definites seem to be incompatible with *jvairus* 'various, varied, diverse' or *gausus* 'abundant, ample, bountiful', or *nemažas* 'considerable, not small', e.g.:

- (22) Jie valgo įvairų maistą. [*Įvairusis] Įvairus maistas jiems teikia malonumą.'They eat a varied diet. The varied diet gives them pleasure.'
- (23) Staiga jam prasidėjo gausus kraujavimas. [*Gausiojo] Gausaus kraujavimo niekaip nepavyko sustabdyti.
 'Suddenly, he started bleeding profusely. There was no way to stop the profuse bleeding.'
- (24) Prie bibliotekos buvo susirinkęs nemažas būrys vaikų. Po ilgų diskusijų [*nemažasis] būrys patraukė link stadiono.
 'A considerable crowd of children gathered by the library. After long discussions, the [*considerable] crowd moved towards the stadium.'
- (25) Jie gyvena nuosavame name. [*Nuosavasis] Nuosavas namas jiems nepigiai atsiėjo.
 'They live in a private house. The privately owned house did not come cheap to them.'

As we see, in these clearly definite anaphoric contexts, the use of long forms is unacceptable. Moreover, as shown in (24), the repeated use of the adjectival modifier is ungrammatical as well. What are the implications of this? Šereikaitė notes that "short adjectives pattern in a similar way to the weak definite that is associated with uniqueness" (Šereikaitė 2019, 85), implying a relationship between the adjectival form and the semantics of definiteness. Yet, when used with proper names, which is evidently a case of uniqueness-motivated definiteness, long adjectival forms are compulsory, e.g., *drąsusis Nelsonas Mandela/*drąsus Nelsonas Mandela* 'the courageous.DEF Nelson Mandela' or *jaunieji Petrauskai/*jauni Petrauskai* 'the young.DEF Petrauskas family' (as opposed to *senieji Petrauskai* 'the old.DEF Petrauskas family' referring to the parents of the young Petrauskas). Short adjectival forms would not be possible in these instances. Following our discussion in 2.2, we could say qualitative adjectives that do not take LFs (as in (22) - (25)) cannot be restrictive attributes limiting the denotation of the noun. Our hypothesis is that they are not typical qualitative adjectives because the properties they imply do not allow the establishment of categories, viz., they function as classifying adjectives, cf. with (7) where a rather common negating construction is used to establish an *ad hoc* category:

(26) Jūsų klausimas – ne iš lengvųjų.

'Your question is not an easy one.' \rightarrow literally 'is not from the easy.DEF [ones]'

'Your diet is not a varied one.' \rightarrow literally 'is not from the varied. DEF [ones]'

3.2. Attribution versus predication

It is an established fact that Lithuanian adjectives are assigned three different functions: 1) attributive as a primary function, 2) a predicative function (complementary) and 3) substantivised (nominalisations) as a secondary function (Kamadulytė-Merfeldienė, Balčiūnienė 2016, 128). Since nominalisations were discussed in detail in 2.3, a few words need to be said about the first two. The difference between attributive and predicative adjectives is of importance here because only short forms in Lithuanian can occur in the predicative function. We know that Slavic languages, i.e., Russian, have had a similar long-short form opposition. Today, these two groups could be considered as belonging to different word classes, namely, adjectives and predicatives.¹⁸ Short forms might differ slightly in meaning (compared to LFs); they are restricted to predicate position only; and only they can govern direct objects (Hansen 2004, 62–63). In this, they are more verb-like than adjective-like.

If adjectives are used predicatively in Lithuanian, they too may appear only in their SFs both in cases of primary and secondary predication. All the adjectives listed in Tables 1 and 2 can be used both attributively and predicatively (primary and secondary predication in (29a) and (29b)), e.g.:

(28) Šįvakar prognuozuojami gausūs krituliai.
 'Heavy precipitation is forecast tonight.'

^{(27) *} $J\bar{u}su$ dieta – ne iš įvair**iųjų**.

 $^{^{18}}$ For a discussion on this, see Belk (2017, 17–22).

(29) a.	<i>Krituliai buvo gausūs.</i> 'Precipitation was heavy.'	VS	*Krituliai buvo gausieji .
b.	<i>Krituliai iškrito gausūs.</i>	vs	* <i>Krituliai iškrito gausieji.</i>
	'Precipitation was heavy.' →	literally	'Precipitation fell heavy.'

There are several other properties that distinguish attributive adjectives from predicatives, according to Belk, including ordering restriction and scopal implications governing attributive uses (Belk 2016, 17–30) that pose some very interesting challenges and implications, but these will not be analysed in this paper.

3.3. A few final comments on the data

The table below presents a value-sorted list (from smallest to largest) of the 30 selected adjectives displaying a less than 1% use of long forms as opposed to short forms.

No	Adj	Translation	FrD – count of long	CCLL - count of long (raw)	CCLL – count of long (ad- justed)	CCLL - % of long
1	nemažas	considerable/not small	0	0	0	0
2	vienodas	uniform/equal/same/homo- geneous/like	0	0	0	0
3	panašus	similar/like/alike/analogous/ resemblant	0	7	1	0.002
4	skirtingas	different/unlike/separate/dis- tinct/diverse	0	4	1	0.003
5	įvairus	various/varied/miscellaneous	0	17	15	0.02
6	aiškus	clear/understandable/ex- plicit/evident	0	27	5	0.03
7	reikalingas	needed/required/necessary/ requisite	0	17	7	0.03
8	vertas	worth/worthy/deserving/ valuable	0	27	2	0.03
9	visiškas	complete/total/full/absolute	0	82	3	0.03

Table 3. The shortlist of adjectives predominantly used in the short forms, sorted by values: the percentage of long forms in CCLL (smallest to largest)

No	Adj	Translation	FrD – count of long	CCLL - count of long (raw)	CCLL – count of long (ad- justed)	CCLL - % of long
10	galutinis	final/ultimate/terminal	0	4	4	0.04
11	neaiškus	unclear/uncertain/obscure/ vague/indistinct	0	9	2	0.04
12	dažnas	frequent/habitual/periodic/ repeated	0	7	3	0.05
13	patogus	convenient/comfortable/ handy	0	7	2	0.05
14	atskiras	sundry/separate/individual/ special/	2	695	20	0.06
15	vidutinis	average/medium/middle/ moderate/normal	2	175	21	0.09
16	būdingas	typical/characteristic/specific	2	74	23	0.1
17	gausus	abundant/numerous/plenti- ful/ample/	0	8	8	0.1
18	menkas	meagre/insignificant/poor	0	10	8	0.11
19	privatus	private/personal/own/propri- etary/individual	1	126	25	0.12
20	optimalus	optimal/optimum/superb/ top-notch	0	4	3	0.12
21	konkretus	concrete/particular/specific	0	127	36	0.13
22	tolesnis	further/subsequent/successive	1	14	14	0.13
23	įdomus	interesting/exciting/enter- taining	0	70	23	0.14
24	normalus	normal/regular/ordinary/ average	0	120	16	0.14
25	sudėtingas	complex/complicated/multi- plex/elaborate	0	39	20	0.18
26	individu- alus	individual/separate/distinc- tive/special	5	647	69	0.44
27	reikšmingas	significant/meaningful/im- portant/weighty	0	40	40	0.48
28	ryškus	bright/stark	1	44	38	0.56
29	švarus	clean/pure/clear/fresh/im- maculate	0	59	41	0.64
30	paprastas	simple/ordinary/normal/av- erage/usual	17	1490	100	0.72

Evidently, some values in the column "CCLL – count of long (adjusted)" differ significantly from the column to its left, presenting the actual ("raw") count of the long forms. In most of the cases, e.g., *atskiras*, *privatus*, *konkretus*, *normalus*, *individualus* and *paprastas*, as explained in section 1.2, this is due to the extraordinarily high number of uses in either terminology or nominalisations. The selected sample of the collocation analyses of these adjectives is included in *Appendix B*. Another fact worth mentioning here is that there seems to be a gap in values between 0.18 and 0.44. Whether or not this is significant is worth analysing; however, it will not be done in this paper.

Finally, I would like to mention the fact that certain adjectives are known to function as determiners signalling the definiteness of an NP, e.g., in Swedish and Danish, morphologically marked long adjectival forms seem to license the definite reading and the necessary morphological marking for definiteness elsewhere in an NP (e.g., on the stacked adjectives) without having a preposed definite article or another acknowledged determiner (Börjars 1994, Van de Velde 2011):

(30) SW:	sist a last.def 'the last failed att	<i>misslyckade</i> failed.DEF tempt' ¹⁹	<i>försöket</i> attempt.DEF
(31) DA:	<i>nederste</i> lowest.DEF 'the bottom-righ	<i>højre</i> right.DEF t desktop drawer' ²ⁱ	skrivebordsskuffe desktop drawer

Börjars calls them *adjectival determiners* (Börjars 1994, 225). Taking our clue from such parallels, we would like to suggest that, at least in some cases, the lack of an opposition between short vs long form is indicative of a shift towards a determiner-like function.

4. Data analysis

4.1. "Adjective-like" adjectives

At first glance at Table 3, one major group stands out, viz., qualitative adjectives that, besides the absence of uses with long forms, display all the typical features characterising this type of adjective in Lithuanian: they act

 $^{^{19}}$ This example is cited from Börjars (1994, 224).

²⁰ This example is from https://ordnet.dk/korpusdk/teksteksempler/kontekst.

as attributive modifiers in NPs; they are gradable (or scalar); they exhibit complex word-formation patterns; they are used in nominalisations; and they are used in terminology. These adjectives include the following items from the table: *idomus* 'interesting, exciting, entertaining', *patogus* 'convenient, comfortable, handy', and *švarus* 'clean, pure, clear, fresh, immaculate'.

These adjectives seem to denote properties of unstable, temporary character. As we know, LFs establish *ad hoc* categories. The unstable nature of the properties denoted by these adjectives seems to make them unfit to serve as classifying properties. While *šiltieji drabužiai* 'warm.DEF clothes' denotes a functional property of clothes that is of a permanent nature, **švarieji drabužiai* 'clean.DEF clothes' cannot establish a category due to the regular shifts between the categories *clean* and *dirty*, as all clothes become dirty over time and can be made clean again. Most certainly, labels such as *švariųjų drabužių pintinė* 'basket for clean.DEF clothes' can be created for containers in a laundry sorting room. However, the use of long forms is not attested in the CCLL. Trost (1996, cited from Riessler 2016, 48) notes that there is a correlation between the use of long versus short adjectival forms and the permanent versus non-permanent properties denoted by adjectives.

To further explore this hypothesis, I expanded the list of adjectives with similar temporary properties to include the following: *aktualus* 'actual, relevant', *alkanas* 'hungry', *naudingas* 'useful, beneficial, valuable', and *tuščias* 'empty, blank, dummy'. They exhibit the same behaviour, viz., uses with long forms are very few, mostly as nominalisations or as modifiers in terms. It seems that an inherent semantic property of [+IMPERMANENCE] disables morphological marking of the NP as a representative of an *ad hoc* category. It is possible to have an established category of *naudingosios iškasenos* 'natural resources' (in Lith. literally 'useful.DEF resources'), but impossible to have one of **naudingieji žmonės* 'useful.DEF people'. Likewise, *tuščias* 'empty' allows long forms in terms like *tuščioji žarna* 'jejunum' (in Lat. *Jejunum*, in Lith. literally 'empty.DEF intestine') and *tuščiosios avižos* 'a species of grass in the oat genus' (in Lat. *Avena fatua*, in Lith. literally 'empty.DEF oats'), but disallows nominals like *tuščioji lėkštė* 'empty.DEF plate'.

Besides the above-mentioned adjectives, two other sub-groups seem to belong to this section of the "adjective-like" adjectives: 1) a group that is called the 'absolute' adjectives in $CGEL^{21}$, e.g., *optimalus* 'optimal, superb, top-notch', and 2) the group that I choose to call the 'mid-class' adjectives, e.g., *normalus* 'normal, regular, ordinary, average', *paprastas* 'simple, ordinary, normal, average, usual', *vidutinis* 'average, medium, middle, moderate, normal', and *būdingas* 'typical, characteristic, specific', since they represent values located in the middle of the scale, as opposed to absolute adjectives, which usually can be found at either end of the scale.

The so-called 'absolute' adjectives, like *optimalus* 'optimal' but also *unikalus* 'unique/alone' and *totalus* 'total' (here again, I have chosen to expand the category and include the latter two to test the hypothesis), are traditionally viewed as non-gradable because they denote the endpoints of the scale and hence are non-scalar *per se*. The properties they denote are perceived as of the absolute (superlative) degree. Even though it is technically possible to form (and use) gradation forms, e.g., *optimalus* (POSITIVE) – *optimalesnis* (COMPARATIVE) – *optimaliausias* (SUPERLATIVE), they are seldom used. One of the very few examples of the long form use is the type of construction with the emphatic pronoun *pats* 'self', as described in 2.3., where the combination [*pats* + long form] seem to license the superlative meaning:

(32) Šešeri metai – pats optimalusis amžius pradėti fomuoti balsą.
'Six years is the optimal.DEF age to start working on voice formation.'

The mid-class adjectives are slightly different from the others listed above, in that they do not establish categories based on particular properties – these remain undisclosed. What they denote is a proximity to the norm/average/ medium. In terms of semantics, this group resembles similarity expressions, but rather than expressing proximity in similarity between objects, as similarity expressions do, these adjectives express proximity between an object and the norm/medium, instead of another object. This is the group where the counts of the long forms in the CCLL had to be significantly adjusted, as they contained many terminology-like uses, precisely because of the semantics of the norm/type. The adjectives in Table 3 that belong here are *normalus* 'normal, regular, ordinary, average', *paprastas* 'simple, ordinary, normal, average, usual', *vidutinis* 'average, medium, middle, moderate, normal', and $b\bar{u}dingas$ 'typical, characteristic, true to type'. Here again, I have chosen to include an additional example of *tipiškas* 'typical, characteristic, true to type',

²¹ The Cambridge Grammar of the English Language 2002.

which, unsurprisingly, also exhibits the absence of long forms. Otherwise, apart from the adjective *vidutinis* 'average, medium, middle', all of these are gradable (or scalar²²); they exhibit complex word formation patterns; they are used in nominalisations; and they are used in terminology. The exception of *vidutinis* could be explained morphologically, i.e., it is a derived adjective constructed with the suffix *–inis*, which seems to be incompatible with qualitative adjectives²³. Hence, features typical of qualitative adjectives, such as gradation, are disabled. Due to their semantics, these adjectives seem to be able to have multiple antonyms depending on the context; one could say that they establish *ad hoc* paradigms of antonyms, e.g.: *paprastas* 'simple, ordinary, usual':

(33) paprastas butas – tarnybinis butas 'normal accommodation – tied accommodation' paprasta mokykla – speciali mokykla 'ordinary school – special school' paprasti agentai – įtakos agentai 'ordinary agents – agents of influence' paprasta sąskaita – taupomoji sąskaita 'an ordinary bank account – a savings account' paprastas skrydis – skrydis su persėdimu 'a direct flight – a transfer flight'

Summing up, I would like to say that despite some peculiarities, all of these adjectives behave like true adjectives in that they: 1) function as descriptive modifiers, assigning properties to heads of NPs; 2) exhibit the full set of features characteristic of qualitative adjectives, with the exception of assuming LFs, which is due to the semantics of the three sub-groups, viz., denoting properties that are either non-stable (impermanent), undisclosed or 'absolute' and therefore not instrumental in establishing classifications or categories.

4.2. Displaced modifiers (or adverbiatives)

Analysing the 30 adjectives in the table, yet another group of adjectives stands out, i.e., *dažnas* 'frequent, habitual, periodic, repeated', *aiškus* 'clear, understandable, explicit, evident' and *ryškus* 'bright, significant'. As in the sub-groups above, I expanded the category by including two additional

 $^{^{22}}$ With certain restrictions, e.g., *paprastesnis*, a comparative degree of *paprastas* 'simple' means 'simpler in structure' rather than 'more usual'.

²³ With the exception of very few like *galutinis* 'final, ultimate, terminal, end', *paskutinis* 'last, final, ultimate', *žemutinis* 'lower, low, ground', *aukštutinis* 'upper, high', *vidurinis* 'middle, mid, secondary' and similar.

adjectives here to test the hypothesis, viz. *akivaizdus* 'obvious, evident, apparent' and *retas* 'rare, scarce, infrequent', which are also characterised by the absence of long forms. I call these 'displaced modifiers', a term partly borrowed from Mel'čuk's concept of displaced categories (Rus. *смещенная категория*) (Mel'čuk 1998, 29–31) implying that information encoded in them is displayed "in the wrong place", viz., sentence-level modification is downgraded to a nominal level. As shown below, the manner adverb *angrily* is in fact a subject-oriented adverb, in other words, it attributes a property *angry* to a female person leaving the room.

(34) She angrily left the room.²⁴

In a similar way, in examples (35) - (38) the sentence-level modification typically expressed by adverbials is relocated to the phrasal level and encoded in the NP through the modifying adjective:

- (35) Jis yra dažnas svečias šiuose namuose.'He is a frequent guest in this house.'
- (36) Lietuvos nacionaliniame muziejuje yra tokių vietų, kuriose tik retas lankytojas tėra pabuvojęs.
 (literally) 'There are places in the Lithuanian national museum which only a rare

(literally) There are places in the Lithuanian national museum which only a rare visitor has stumbled upon. \rightarrow There are places in the Lithuanian national museum rarely stumbled upon by visitors.'

- (37) Auditas atskleidė ryškų piktnaudžiavimą sistema šalyje.'The audit revealed a significant abuse of the system throughout the country.'
- (38) Norėčiau pranešti apie akivaizdų (aiškų) pažeidimą. (literally) 'I would like to report an obvious infraction. → I would like to report what is obviously an infraction.'

Dažnas svečias in (35) is not a property of a guest, but rather a modifying predication informing the frequency of a male person's visits to a particular home. In (36) *retas lankytojas* is not a property of a visitor, but a modifying predicate informing the reader that people rarely visit certain places/locations.

²⁴ Example provided by Kees Hengeveld at *Academia Grammaticorum Salensis Septima Decima*, Lithuania, July 29, 2020.

Likewise, in (37) the modifier 'significant' does not specify a kind of *abuse* but rather the level/degree of its prevalence in the country. In (38) the evident or explicit violation does not entail a property of *violation*, but rather the level of it. The latter case could be called an evidential adverbiative. In CGEL, these uses of adjectival modifiers are called *modal attributives* (2002, 557). Similar examples would be *a potential winner of the Nobel Prize*, *a plausible explanation*. Due to the fact that it is a displaced sentence-level modification, the grammatical features of adjectival modification on a nominal level are disabled, eliminating the possibility of uses of long forms.

In a way, these constructions could be treated as nominalisations, e.g., $dažnai \ lankosi$ 'frequently visits' $\rightarrow dažnas \ lankytojas$ 'frequent visitor'; aišku, *kad tai – pažeidimas* 'it is obvious that this is an infraction' \rightarrow *aiškus pažeidimas* 'obvious infraction'. The degree of membership in the category denoted by the noun depends on the validity of what is expressed by the modifier: in the latter example, the less obvious an infraction, the less assuredly we can classify the event involved as an infraction. They qualify the belonging of the noun to the category denoted, but do not establish the category. These adjectives behave differently from the typical adjectives like juodas 'black' (e.g., juodas švarkas 'black jacket' is a sub-category of all jackets). The modifier juodas 'black' can establish a sub-category of black jackets, but it is not essential in identifying a jacket as member of the category of *jackets*; while *dažnas* 'frequent' speaking of frequent visitors does define the membership degree to which a visitor can be considered to belong to the category of visitors (the more often/frequently one comes, the more likely he/she will be considered a visitor; similarly, the more obvious the infraction, the more likely it can be classified as one).

Even though, the observation below does not fall under the label of displaced modification, but rather under the label of some type of quantification (seemingly, this will be discussed in Section 4.5), I would briefly like to comment on two adjectives discussed above, viz., *dažnas* 'frequent' and *retas* 'infrequent'. They seem to belong to more than one group of adjectives used predominantly with SFs, viz., they may also function as quantifiers with *dažnas* meaning 'more than one, a few, many' and *retas* meaning 'few' as in an unspecified quantity, as demonstrated in these examples:

(39) Dažnas žmogus, išgirdęs žodį Belgija, pagalvos apie šokoladą.
'Upon hearing the word *Belgium*, many people will think of chocolate.'

(40) *Reta moteris praranda savitvardą konflikto metu.* 'Few women lose control in a conflict situation.'

They show behaviour similar to that of multal (expressing quantification by items such as *many*, *much*, *a lot*, etc.) and paucal (expressing quantification by items such as *a few*, *several*, *a little*) quantifiers. Other languages, e.g., Swedish, also have these types of quantifiers expressed through adjectives, e.g., *åtskilliga* 'several' and *enstaka* 'single, isolated'.

4.3. Adjectives with complex verb-like argument structures

Yet another feature shared by quite a few adjectives in Table 3 is worth special attention. While qualitative adjectives do not traditionally take complements, some of the examined ones do. In this regard they exhibit verb-like behaviour and often take more than one argument, e.g.:

(41)	<i>globos</i> care.gen.sg.[F] 'a state requiring car	<i>reikalinga</i> in need.nom.sg.f.non-def re'			<i>būklė</i> state.nom.sg.[F]	
(42)	<i>vaikų</i> children.gen.pl.[M]	<i>dvasios</i> spirit.ge		s <i>veikatai</i> health.DAT.SG.[F]	<i>didžiai</i> greatly.ADV	
	<i>reikalingas</i> necessary.NOM.SG.M.	NON-DEF	<i>mokslas</i> educatio	on.NOM.SG.[M]		
	'education, much needed for the mental health of children'					
(43)	<i>verti</i> worthy.NOM.PL.M.NOI 'worthy of an inscrij		T	on.gen.sg.[m]	<i>knygoje</i> book.loc.sg.[F]	

(44) psichikos sutrikimams būdingi
psyche.gen.sg.[F] disorder.DAT.PL.[M] characteristic.NOM.PL.M.NON-DEF
pokyčiai
change.NOM.PL.[M]

'changes inherent in mental disorders'

As shown in (41) and (42) the adjective *reikalingas* 'needed, required, necessary' takes two arguments: 1) in need of something – an argument in genitive (*in need of care*); 2) necessary for something – an argument in the dative case (*necessary for health*). In (43) the adjective *verti* 'worth, worthy,

deserving, valuable' takes an argument expressed in the genitive – worthy of something (*worthy of inscription*). In (44) the adjective $b\bar{u}dingas$ 'typical, characteristic, inherent' takes an argument in the dative (*inherent in* or *characteristic of*).

Besides the three adjectives mentioned in the examples above, this group includes other items listed in Table 3:

- atskiras 'separate, individual, distinct' atskiras nuo ligoninės administracijos žmogus 'a person independent of the hospital administration' (literally 'a person detached from the administration') – argument with preposition nuo 'from' + genitive
- *panašus* 'similar, like, alike, analogous, resemblant' *panašūs i riedulius koralų gabalai* 'boulder-like pieces of coral' (literally 'pieces of coral similar to boulders' argument with preposition *i* 'to' + accusative
- vienodas 'uniform, equal, same' vienodos su kitais piliečiais galimybės 'opportunities equal with other citizens' – argument with preposition su 'with' + instrumental
- *skirtingas* 'different, unlike, separate, distinct' *nuo žydų skirtingi krikščionys* 'Christians different from Jews' argument with preposition *nuo* 'from' + genitive

All these adjectives can be used both attributively and predicatively. It is significant that even predicates can keep with their argument structure, e.g., *Jis buvo reikalingas gydymo*, 'He was in need of treatment', where the adjective *reikalingas* 'in need' takes a genitival complement *gydymo* 'treatment'.

As in the Slavic languages (see 2.2), it is only SFs that can function as predicates in Lithuanian, a function usually performed by verbs and verblike elements, where the functions and properties of attribution are no longer important. Therefore, it is not surprising that these verb-like adjectives do not engage their attributive properties and are used mostly in their SF. Unquestionably, the verb-like argument structure associated with these adjectives alone cannot explain why they are predominantly used in their SFs, yet I felt that it was an evident shared feature allowing me to group them in an attempt to organise the data evidence.

4.4. Adjectives between determinatives and pronouns: Quasi-determiners

While definiteness marking has received some attention, we still have no comprehensive description of Lithuanian indefiniteness marking strategy. We know from linguistic studies that languages that have prototypical indefinite markers (i.e., indefinite articles) are uncommon, yet many have other means to signal the indefinite status of an NP. As Lyons notes: "Real indefinite articles – encoding [-DEF], and in part identifiable by not being the same as or readily derivable from a cardinality word – are rare, if they genuinely exist at all." (Lyons 2003, 89). Instead, languages use other markers, which, often, are optional in NPs to indicate specific indefinite reference, e.g., *any*, *some*, *certain*, etc. It is often indefinite pronouns (and certain adjectives) that take on the role of signalling the indefiniteness of an NP.

Several attempts have been made to create a comprehensive classification of Lithuanian pronouns. In 1984, Rosinas published a monograph on their semantic structure. In 1996, a new revised edition of the book was published, providing a novel and, to date, the most comprehensive overview of Lithuanian pronouns. In 1997, a major study based on a sample of 40 languages, including Lithuanian, of indefinite pronouns and their formal and semantic properties was written by Haspelmath. It modernised and completed the analysis of Lithuanian pronouns, which in turn was further fine-tuned by Kozhanov in 2010, focusing on certain series of indefinite pronouns. Yet, the major issue of differentiation between certain pronouns and adjectives, in terms of word class assignment, remains open, as is shown in this article.

Reviewing Rosinas' monograph, Tekorienė (1987, 88–89) justly notices and questions the relationship between certain pronouns and adjectives, saying that their referential functions are fairly similar, e.g.: *visas* 'whole' and *pilnas* 'full, complete'; *tam tikras* 'certain' and *nustatytas* 'given, established', *ypatingas* 'particular' and *specialus* 'special'; *visoks* 'any, all sorts' and *jvairus* 'various, varied, diverse'; *toks pat* 'same' and *vienodas* 'same, uniform, one'; *toks* 'such' and *panašus* 'like, alike, similar'. Paulauskienė makes some new additions to this list, viz.: *dažnas* 'frequent/manifold/numerous', *tūlas* 'frequent/manifold/various', *ištisas* 'whole/entire', *kiauras* 'whole/entire' (Paulauskienė 1994, 44).

Many of the above fall within the four categories explicitly listed by Haspelmath as commonly associated with, but not belonging to, the class of indefinite pronouns (Haspelmath 1997, 11–12), viz., mid-scalar quantifiers like *few, several, many*; generic pronouns like French *on*, German *man*, English *one*; universal quantifiers *all* and *every*; and identity pronouns like *other* and *same*. According to Haspelmath, the mid-scalar quantifiers "express quantity and have nothing to do with indefinites" (ibid.). Universal quantifiers are semantically definite, even though they sometimes lack formal

definiteness markers. And finally, the identity pronouns, which, according to Haspelmath "express identity and non-identity and do not show any affinity to indefiniteness at all" (Haspelmath 1997, 12). The generic pronouns, like those in French or German mentioned above, are lacking in Lithuanian.

Yet, adjectives with meanings and functions very similar to those of the three above-listed groups behave in a peculiar way with regard to the definiteness marker (or rather, the absence of it) in Lithuanian. Whether or not this can be linked to indefiniteness will be discussed later while analysing the material. I assume that they act as quasi-determiners because, besides their modifying function, they perform additional functions in the NP similar to those of determiners.

4.4.1. Similatives, dissimilatives and variatives (and multipart modifiers)

It has been argued that there exists a cross-linguistic category containing nominal expressions of similarity, which creates *ad hoc* categories in discourse (van der Auwera, Sahoo 2019). The prototypical representative of this category is the word *such* (Lith. *toks*, Swed. *sådan*, Dutch *zulk*, Germ. *solcher*). This category is known to contain words attributed in grammars to various word classes, e.g., pronouns, adjectives, determinatives. Their meanings entail a combination of semantic categories of similarity and demonstration. That is why this category is also known as 'similative demonstratives'²⁵. Examining the list of adjectives in Table 3, it became apparent that Lithuanian adjectives *panašus* 'similar, like, alike, analogous, resemblant' and *vienodas* 'uniform, equal, same, homogeneous, like' could be considered as candidates for this category, especially when used without complements, as their main function is to express similarity or comparison and point to the object of comparison.

Even though inherently indefinite, in many languages pronominal similatives used as modifiers, e.g., English *such*, Swedish *sådan*, appear in NPs with indefiniteness markers. This seems to be the case in Lithuanian, too (Vaitkutė 2019). Interestingly, out of 7 examples of *panašusis* 'similar. DEF' in the CCLL, 5 were terminology uses, viz., in geometry *panašieji trikampiai* 'similar.DEF triangles' and *panašiosios figūros* 'similar.DEF figures', and 2 nominalisations. The adjective *vienodas* 'uniform, same, equal' has 0 instances of long forms in the CCLL.

²⁵ The term 'similative' referring to a linguistic category was coined by van der Auwera. In 2018, this term was modified to 'demonstrative similatives' or 'similative demonstratives' (van der Auwera, Sahoo 2018).

Following this line of thought, I added a couple of additional adjectives to this group, naming them 'dissimilatives' and 'variatives'. While toks 'such' creates and ad hoc category in the utterance, *jvairus* 'various' also creates a category for the purpose of what is being stated in the utterance while at the same time emphasising that categorised objects are dissimilar in other essential aspects. Adjectives like *skirtingas* 'different, unlike, separate, distinct, diverse' and *atskiras* 'distinct, non-identical, unlike' naturally belong here. Also, words expressing variety or complexity (being multipart), the prototypical member of which is *all kinds/all sorts* (Lith. *visoks*, Swed. *alla slags*, Dutch *allerlei*), could fit in this group.

The dissimilative *skirtingas* 'different' has 4 instances of long forms in CCLL, 3 of which are nominalisations. I think that these adjectives do not capture the notion of identity (apart from some instances of *vienodas* that has a meaning of 'same' in its inventory). Rather than denoting a criterion from which a category is established, variatives characterise the heterogeneous structure of a set of objects. Therefore, since the long adjectival forms denote a category (either taxonomic or *ad hoc*) based on a qualifying property, they are incompatible with variatives. Of the adjectives found in Table 3, the following two belong here: *jvairus* 'various, varied, miscellaneous' and *sudėtingas* 'complex, complicated, multiplex, elaborate, multipart'. I have expanded this category by adding here $t\bar{u}las$ 'various, of all sorts', which also shows a complete absence of long forms in CCLL, strengthening the hypothesis that these items form a particular group, and are more than just mere attributive adjectives.

Since long forms of adjectival modifiers establish categories based on particular properties, variatives like *jvairus* 'various' and multipart modifiers like *sudėtingas* 'complex' (in Lith. literally 'comprising different bits') cannot establish a category based on a particular property – this property is undisclosed. It clearly establishes a category, the individual members of which are different. Hence, as opposed to *baltieji* '[the] white.DEF [ones]' = 'ALL those who are white', *jvairieji* '[the] various.DEF [ones]' = 'ALL those who are ?':

- (45) *įvairių tautybių žmonės* 'people of various.NON-DEF nationalities'
- (46) Jis po tūlas parduotuves vaikščiojo, bet ko reikėjo, taip ir negavo.'He walked around various.NON-DEF shops, but did not get what he needed.'

- (47) Esi laimingas, patyręs labai sudėtingas emocijas.'You are happy having experienced very complex.NON-DEF emotions.'
- (48) Jis susirgo komplikuota alergijos karštam klimatui forma.'He contracted a complicated.NON-DEF form of allergy to hot climates.'

These adjectives are non-singular due to their semantics, i.e., one cannot be various; multipart implies composition of more than one part. Another characteristic feature of variatives and multipart modifiers is that they are not bipolar. *Various* and *multipart* or *complex* do not have clearly defined antonyms. To sum up, one could say that their primary function is other than just to modify. They express variety and complexity, hence have a correlation with quantification: an expression of multal quantification.

4.4.2. Particularising attributives

In parallel to the above discussion, one could say that words expressing specificity or particularity form a minor category across languages, the prototypical member of which is certain (Swed. somlig or viss, Dutch een zekere). The term used in CGEL is 'particularising attributives' (2002, 558). In Lithuanian, its counterpart is a pronoun *tam tikras*²⁶. Adjectives belonging to this group "serve to pick out a specific member or group of members of the set denoted by the head" (ibid.). The shared property of these adjectives is that, essentially, they do not denote any property, but rather to specify, point out or to particularise a member or a group of members belonging to the category denoted by the NP. Adjectives belonging to this group are konkretus 'concrete, particular, specific' (only this adjective is included in Table 2), specialus 'special, particular, individual', and ypatingas 'special, particular, peculiar, extraordinary' (these two have been added by me to test the hypothesis, based on the comments of Tekorienė, see 4.4). The adjective konkretus has a very low count of long forms, while both specialus and *ypatingas* show a different pattern with a much higher percentage²⁷ of long form uses, e.g.:

²⁶ In the Lithuanian Grammar (Ambrazas et al. 2006, 188), it is classified as an indefinite differentiating pronoun. Rosinas does not consider this to be a pronoun, but rather an adjective (Rosinas 1996, 11).

²⁷ Specialus has appr. 50% of LFs, while *ypatingas* has appr. 6%. However, collocation analysis needs to be carried out to eliminate cases of terminology-like uses, e.g., *specialiosios pajėgos* 'special forces', *specialioji mokykla* 'special school \rightarrow school for children with special needs', etc.

- (49) Surinktos lėšos numatytos konkretiems tikslams.'The funds raised are earmarked for specific.NON-DEF purposes.'
- (50) Kunigas daug dėmesio skyrė ypating**iesiems** sielovados darbams. 'The priest paid much attention to the special.DEF pastoral tasks.'

While in (49) a short form of *konkretus* is found, in (50) we see a long form of *ypatingas*. In both cases, the translation of the adjective is 'specific', which in these cases could be interpreted as a direct synonym of *certain*. Yet, LF in (50) could have been chosen deliberately to avoid determiner-like reading and to demonstrate that special pastoral tasks do not just mean 'certain tasks', but rather 'tasks specific to the pastoral vocation'. I cannot offer an explanation why *specialus* and *ypatingas* behave differently than *konkretus*. What we do know from the grammars of other languages, e.g., Swedish, is that this type of adjective is predominantly used in indefinite NPs. A simple search in the BNC²⁸ for the string 'a certain' versus 'the certain' yields a result of 5100 instances versus 56, which is significant.

Summing up, one could say that this group of adjectives establishes a category not based on a particular property denoted by them (the property is not disclosed); rather, they seem to describe the structure of the category. They could be considered to be quasi-determiners that appear with indefinite NPs. In discourse, these adjectives seem to function as anonymity guardians, allowing the speaker to indicate that a set is not arbitrary without disclosing the feature that constitutes it. In a nutshell, like similatives and dissimilatives, these adjectives, besides their main function to serve as modifying attributes, perform other functions; in this case, that of particularising while leaving the referents unidentified.

4.4.3. Possessives

Possessives²⁹ are inherently definite and, in languages with determinatives, are incompatible with other determinatives, like articles. Even though mostly expressed by pronouns or genitives, sometimes they can be expressed by adjectives. The prototypical member of this category is *own* (Swed. *egen*,

²⁸ The BNC stands for the British National Corpus, english-corpora.org/bnc/.

²⁹ Possessives here are to be understood as pronoun-derived possessives, like *my*, *your*, and determiner-genitives like *Peter's*, *mother's*, etc., as opposed to non-determiner genitives, like *aukso žiedas* 'gold.GEN.SG.[M] ring.NOM.SG.[M]' (Trakymaitė 2018, 117–122).

Dutch *eigen*). In English, it often appears following a possessive pronoun, i.e., *He cooked his own dinner*. In Table 3, we find an adjective *privatus* 'private, own, personal, individual'. This group could be expanded by adding yet another adjective *nuosavas* 'own, private, one's very own', which is a prototypical member of this category. It also has 0 long forms in the FrD and the CCLL but has not been included in the data here since its ranking number is 5280. Moreover, in languages that have an adjectival marking of definiteness alongside determinatives, a prenominal modifying adjective in an NP is always marked for definiteness, viz., used in its long form, e.g.:

(51) SW: hans lilla hus 'his little.DEF house'

However, interestingly, if the possession is expressed with the help of an adjective, like the ones mentioned above, the marking on the adjective disappears, e.g.:

(52) SW: *hans eget hus* 'his own.NON-DEF house'³⁰

In both (52) and (53) the noun *hus* is not marked with a postposed definite article *huset*. This seems to correspond to the Lithuanian use of these adjectival modifiers, viz., predominantly in their short forms.

 (53) jo nuosavas namas ≈ savas namas 'his own house'

In (53) the use of a long form **nuosavasis* 'own.DEF' is impossible. Rather than expressing a property, these adjectives express possession and ownership; and while they are inherently definite, they are seldom marked for it.

4.5. Quantifiers

A rather large group of adjectives in Table 3 seems to have something to do with the notion of quantification. Not all languages acknowledge quantifiers as a word class. In some, words expressing quantification are considered members of the pronoun class; in some others, members of the classes of

³⁰ If in (56) a modifier *alldeles* 'entirely' is inserted, the form *eget* would change to egna.DEF, viz. *hans alldeles egna hus* 'his entirely own house'. This requires further analysis.

determinatives or adjectives. In Lithuanian linguistics, little attention has been paid to quantification and its expression (some insights into Lithuanian universal quantifiers are to be found in Rosinas (1996, 121-131). There are two main types of quantification, viz., existential quantification, which "indicates a number greater than zero, and has some as its most straightforward expression" (CGEL 2002, 358); and universal quantification, which is expressed by numerous quantifiers of which all is the most prototypical one (CGEL 2002, 359). On the basis of the empirical findings presented in Table 3, I will split the adjectives that in some way express quantification into 4 separate groups, based on the semantics of their quantification, which partly match the two main known types of quantification: 1) approximatives, which overlap with existential quantification; 2) 'dispersed' quantification³¹; 3) ordinatives³², which borrowed their name from the Swedish tradition to refer to words like nästa 'next, further, subsequent', första 'first, initial, prime', sista 'last, final, ultimate' and *förra* 'previous, preceding' as 'ordinative pronouns' due to their partial resemblance to ordinal numbers; and 4) and universal quantifiers.

Speaking of the semantics of quantification, there is a close correlation between quantifiers and the notions of uniqueness and inclusiveness, attributed to the category of definiteness (Lyons 2003). Uniqueness implies that the number (both at individual and at generic reference level) is one. Speaking about uniqueness, Lyons notes that "the definite article signals that there is just one entity satisfying the description used. This uniqueness is generally not absolute but is to be understood relative to a particular context." Yet, in instances of the use of count nouns in plural or mass nouns, or collective nouns in the singular, but referring to non-singular concepts, we evoke the concept of inclusiveness rather than uniqueness: "the reference is to the totality of the objects or mass in the context which satisfy the description" (Lyons 2003, 11). Summarising, it can be said that "the uniqueness clause can be reformulated as inclusiveness of or totality" (Lyons 2003, 265). Moreover, 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

 $^{^{\}rm 31}$ I am grateful to Axel Holvoet for the suggested term.

³² It could be argued that ordinatives deal not with quantification, but rather with location modification, as they specify the placement in a specified order or rank in a series (or taxonomy). As will be shown, ordinatives differ from the other sub-groups in their use of long forms.
one (i.e., the 'plurality' of) instances of the referent" (Kibort, Corbett 2008). Turning these concepts around, one could say that indefiniteness is associated with non-totality of objects or mass, approximative values and cardinality, which singles out a certain known number of referents of a class, or possibly one, but does not necessarily make them definite.

4.5.1. Approximatives (resembling multal and paucal quantifiers)

Six adjectives in Table 3 seem to denote quantities or approximative values. These six consistently take only paradigms of short forms. They resemble the mid-scalar quantifiers mentioned by Haspelmath (see 4.4) in that they denote properties of unidentified degree that are scalar both in larger and smaller quantification, respectively (CGEL 2002, 365–366). This group includes *gausus* 'abundant, numerous, plentiful, ample, bountiful', *nemažas* 'considerable, not small', *reikšmingas* 'significant, meaningful, important, weighty' and *menkas* 'meagre, insignificant, poor'. To expand the group, I have included an additional adjective, similar in meaning and function, viz., *pakankamas* 'sufficient, adequate, enough', which does not show long forms, but belongs to this group by virtue of its meaning.

In NPs modified by approximatives, reference is made to quantity and not to an attributive property of the N, e.g., *nemažos pajamos* 'significant.PL income.PL'³³. Their values are truly mid-scalar, lining up between little and much, e.g.:

LITTLE > menkas > pakankamas > nemažas > gausus > reikšmingas > MUCH

(54) Reikšmingas susirinkusiųjų skaičius siekė kelis šimtus.

'The significant number of attendees reached several hundred.'

In (54), 'significant number' means, simply, a rather high number, approaching the scalar endpoint 'much'.

Even though, formally, some members of this category, e.g., *gausus* 'abundant', *menkas* 'meagre', seem to be able to form grade-like expressions (see the comparative degree of *gausus* below in (55)), their values still seem to remain approximative and mid-scalar, with no defined values, as there is no fixed reference point:

³³ In Lithuanian *pajamos* 'income' is a *plurale tantum* noun.

(55) Gausesnis derlius kainų augimą pristabdys.'Higher yields will slow down price growth.'

On the above-mentioned scale, they would just take a place close to one of the relative end-points:

LITTLE > **menkesnis** > menkas > nemažas > gausus > **gausesnis** > ryškus > reikšmingas >MUCH

Observing the adjectival quantifiers in the sub-group of approximatives, one gets the impression that their predominant use with short forms has to do with their ability to establish categories, the semantics of which are [NUMBER] + [APPROXIMATE VALUE]. As mentioned above, they partially overlap with existential quantification in that that they, too, always indicate a number higher than zero; in most of the cases, higher than one, as they often appear in collocations with plural nouns or mass nouns. These adjectives are incompatible with the sole Lithuanian definiteness marker in that it always carries the [+DEF] value and signals a definite referent because the referent of an NP modified by an approximative can never be definite. They cannot establish categories like *gausieji* 'abundant.DEF' \rightarrow 'ALL those that are abundant' because the property denoted by them is too vague to serve as a basis for classification. It could be said that this category is the embodiment of the semantics of indefiniteness. An adjective like ryškus 'bright/ significant' belongs to this category because of its intensifying properties, as in *ryški pergalė* 'a significant victory' and not because of its brightness, as in ryškioji žvaigždė 'the bright.DEF star'. The two displaced modifiers retas 'rare, infrequent' and *dažnas* 'frequent, repeated, periodic' also belong here in their quantifying meanings (NB in the examples the singular NPs retas vaikas, literally 'a rare chid' and *dažnas darbadvys*, literally 'a frequent employer' refer to multiple referents, as demonstrated in translation), e.g.:

- (56) Retas [kuris] vaikas suprato egzamino užduotį.'Few children understood the exam task.'
- (57) Dažnas darbadavys nuolat skubina darbuotojus.'Many employers are always rushing their employees.'

4.5.2. 'Dispersed' quantification

'Dispersed' quantification is a term that I will use to describe a category of quantifiers that typically indicate a small number and a dispersed occurrence. An adjective like *pavienis* 'isolated, single, solitary' (Swedish *enstaka*), which I added to this group, could act as a prototype for these quantifiers. The two similar adjectives found in Table 3 are *atskiras* 'separate, individual, special, distinct detached' and *individualus* 'individual, separate, distinctive, special':

- (58) Tyrinėtojai dažniausiai rėmėsi pavieniais pavyzdžiais.'Researchers mostly relied on individual/isolated examples.'
- (59) Jie nagrinėjo atskiras bylas.'They dealt with individual cases.'
- (60) Komanda bandė varžovus įveikti individualiais veiksmais.'The team tried to beat the opponents with individual actions.'
- (61) SW: Enstaka diabetesläkemedel har även visats skydda mot kardiovaskulära och renala komplikationer.
 'Occasional diabetes drugs have also been shown to protect against cardiovascular and renal complications.'

Rather than denoting a criterion from which a category is established, these quantifiers (like similatives and variatives) epitomise the structure of the category. Therefore, since the long adjectival forms denote a category (either taxonomic or *ad hoc*) based on a qualifying property, they are incompatible with dispersed quantifiers and other groups of quasi-determiners mentioned herewith.

4.5.3. Ordinatives

This group of adjectives is discussed among quantifiers due to their parallels with ordinal numbers. Ordinatives are one of the categories of quantifiers that differ in terms of the use of long forms. This category exhibits mixed behaviour, with some of its members, viz., *galutinis* 'last, final, end' and *tolesnis* 'further, subsequent', predominantly used in their short forms (the count for long forms is less than 1%). These are the two adjectives to be found in Table 3. As is customary, I have added a few more adjectives with similar meanings to expand the group, i.e., *ankstesnis* 'previous, former, preceding', *paskutinis* 'final, last, ultimate, end' and *velesnis* 'later,

subsequent, posterior', which have a significantly higher count of long forms. Morphologically, they are different from others, too, because they are formed with either the comparative degree suffix *-esn-* (*tol-esn-is, anskt-esn-is, vėl-esn-is*), which allows for long-form paradigms, or with the suffix typically used to form relational adjectives (that do not have long form paradigms), *-in-* (*paskut-in-is, galut-in-is*)³⁴. Yet, in this case it does not seem to prevent ordinative adjectives from developing paradigms of long forms, as in *paskutin-ysis, galutin-ysis, aukštutin-ysis* 'upper', *žemutin-ysis* 'lower'. This could be explained by the inherent semantic definiteness of ordinatives with or without added definiteness markers. The mixed morphological pattern could partially explain the mixed use of short vs long forms in NPs containing these adjectival modifiers³⁵. In other languages with elaborate (in) definiteness marking and adjectival definiteness marking, e.g., continental Scandinavian and Dutch, ordinatives serve as a potential source for acquiring new determinatives (see 3.3), e.g.:

(62)	SW:	Jag	längtar	efter	först a	skön a	sol en .
		Ι	long.prs	for	first.def	beautiful.DEF	sun.def
		ʻI lor	ng for [the]	first beautifu	ul sun.'		

(63)	näst a	lång a	etapp
	next.DEF	long.def	stage
	'[the] next	long stage'	

In (62) and (63) ordinatives are used instead of definite articles and all the following attributes are compulsorily marked for definiteness (used in their weak forms) as well.

4.5.4. Universal quantifiers

Universal quantifiers as a sub-group also denote semantically definite referents due to their semantics of totality (inclusiveness). This group includes the adjective *visiškas* 'complete, total, full, absolute', to be found in Table 3. I have added two other adjectives, viz., *ištisas* 'whole, entire, all' and *kiauras*

³⁴ As was rightly noted by a reviewer, *galutinis* differs from *auksinis* in its morphological composition, viz., it contains a morphologically complex suffix with a different prehistory; also, *auksas* + -in= *auksinis*, but *galas* + -in= *galinis*, not *galutinis*.

³⁵ Evidently, ordinal numbers, like *first*, etc., which, in Lithuanian, allow for paradigms of long forms, belong to this group.

'whole, entire, all'³⁶. These, however, are consistently used in the short form, which is not a typologically rare feature according to Haspelmath (1997, 11–12). Šereikaitė (2019, 85) explains this with a parallel between the use of short adjectival forms in Lithuanian and expressions of weak definiteness, which is typically linked to the notion of uniqueness; this seems quite plausible because, as demonstrated, totality is a mirror of uniqueness.

(64) *Lijo kiaurą naktį*. 'It rained all night.'

A remark needs to be added here concerning the relation existing between totality and distributivity, e.g.:

(65) Ištisas kaimas žinojo jo paslaptį. ≈ Kiekvienas to kaimo gyventojas žinojo jo paslaptį.
'The entire village knew his secret.' 'Every villager [of that village] knew his secret.'

While *the entire village* gets a definite reading, *every villager* gets a distributive reading that may not be interpreted, necessarily, as definite. However, both universal quantifiers and distributives like *every* exhibit the same morphosyntactic feature – they are not marked for definiteness, as they are predominantly used with short forms.

However, some peculiar examples can be found in Swedish, e.g.:

- (66) SW: Varje god pjäs innehåller flera akter.'Each good play contains several acts.'
- (67) Vi skrattar åt varje minsta lilla sak.'We laugh at every smallest.DEF tiny.DEF thing.'
- (68) varje hans gärning
 'his every deed' → literally 'every his deed'³⁷

 $^{^{36}}$ The adjective *kiauras* has another direct meaning, viz., 'holey, full of holes', which is irrelevant in this context.

³⁷ Examples (68) and (69) are taken from the Swedish Academy Grammar (SAG Vol. 2, 384).

(69) *varje första entusiastiskt försök* 'every first.DEF enthusiastic attempt'

Example (66) demonstrates the expected use of short adjectival forms after the distributive *every*. However, examples (67) – (69) show the universal interpretation of *every* because the following attributive adjectives are marked for definiteness. SAG³⁸ explains the use of long adjectival forms in (67) as a lexicalised link between the distributive pronoun *every* and the superlative *smallest* (note that both adjectives agree in definiteness marking); (68) as an outdated use (in contemporary Swedish a possessive would be placed first); and (69) as a possible, but rare, use (note that only an ordinative is marked for definiteness, the second attribute is not). This is reflected in the changed structure of the Swedish NP and the changed status of various determiners due to the parallel universal and distributive readings of *every*.

Summing up, one could say that universally quantifying adjectives are used with their short forms in inherently definite NPs due to the semantics of totality or uniqueness.

4.6. Summary of the findings

The 30 adjectives in Table 3 have been divided into 4 major groups:

No	Groups of adjectives
1.	Adjective-like adjectives that exhibit 'proper' adjective-like behaviour (this group also includes the so-called absolute and mid-class modifiers, which have some irregular features), e.g., <i>švarus</i> 'clean'; absolutives like <i>optimalus</i> 'optimal'; and mid-class modifiers like <i>būdingas</i> 'typical, characteristic'
2.	Adjectives that do not function like adjectives, viz., displaced modifiers or ad-verbiatives where sentence-level modification is downgraded to nominal level, e.g., <i>dažnas</i> 'frequent', <i>aiškus</i> 'evident'
3.	Verb-like adjectives that have complex, verb-like argument structures, e.g., <i>vertas</i> 'worthy', <i>reikalingas</i> 'needed'
4.	Adjectives that function as quasi-determiners , both definite and indefinite, viz., that establish minor categories of their own due to additional functions outweighing the traditional modifying function. This group includes several sub-groups:

³⁸ SAG = Svenska Akademiens grammatik 1999.

4.1.	similatives, dissimilatives, variatives e.g., <i>panašus</i> 'similar', <i>skirtingas</i> 'different, unlike', <i>jvairus</i> 'various, varied, miscellaneous'
4.2.	particularising attributives, e.g., konkretus 'concrete, particular, specific'
4.3.	possessives, e.g., privatus 'private, own, personal'
4.4.	quantifiers , which include 4 different sub-categories: approximatives, e.g, <i>menkas</i> 'meagre, insignificant', markers of dispersed quantification, e.g., <i>atskiras</i> 'separate, individual, distinct', ordinatives, e.g., <i>galutinis</i> 'final, ultimate, terminal' and universal quantifiers, e.g., <i>visiškas</i> 'complete, total, full, absolute'

These groups have been expanded to include a few semantically similar members, which have also been checked in the CCLL for the proportion of long vs short forms. Almost all of them, with the exceptions of *specialus* 'special' and *ypatingas* 'special, peculiar, particular', do not differ from other members in their respective groups.

All the adjectives analysed in the article have multiple translations into English due to their fluid meanings. In Tables 1 and 3, I have attempted to show as many of their alternative translations as possible. Yet it was entirely possible to find a common denominator (a prototypical member) for all the various groups created in the analysis. Some of the adjectives were analysed on the basis of just some of their meanings, e.g., *ryškus* 'bright' belongs to the group of approximatives due to its metaphoric, more abstract meaning, approaching that of an intensifier, as in *ryškus skirtumas* 'glaring difference = significant difference', which follows an attested path of grammaticalisation consisting in the concrete lexical meaning (brightness) being abandoned and drifting towards the more abstract meaning of a degree modifier (intensifier), ultimately landing in the group of displaced modifiers (adverbiatives).

Many of the analysed adjectives lack scalarity and gradation, which is one of the defining features of qualitative adjectives, and consequently cannot be used with degree modifiers. This is because some of them are non-scalar in that they themselves represent the end-points of the scale, e.g., $visiškas \rightarrow$ 'total' – *visiškesnis. Others, while allowing gradation, e.g., gausus 'abundant'– gausesnis – gausiausias, disallow the use of degree modifiers as this would be ungrammatical, e.g., *visai gausus 'quite abundant', *labai tolesnis 'very further', *pakankamai nuosavas 'sufficiently own'. Another common feature is the fact that several adjectives could represent more than one category, e.g., *individualus* 'individual' could be a distributive quantifier or a specificity indicator, and even be synonymous with the absolutive *unikalus* 'unique'; *tūlas* could be a quantifier or a variative; *dažnas* could be an adverbiative or a quantifier, etc.

5. Conclusions

There is no one single reason why an adjective in Lithuanian shows an absence of long forms. Some adjectives do not assume long forms because of semantic-pragmatic reasons, e.g., the group of adjective-like adjectives, many of which denote properties of such unstable, impermanent, or temporary nature that they cannot establish *ad hoc* categories like long adjectival forms do. Other adjectives lack long forms because they do not denote properties, but serve as quasi-determiners to express qualification, similarity, variation, specificity, possession, etc.

A group that stands out for a different reason is the so-called displaced modifiers because they, unlike traditional attributes, encode sentence-level modifications (like adverbials) on the level of a noun phrase. One could say that their locus and the scope of their function do not match. They therefore do not command the features typical of attributive qualitative adjectives.

Verb-like adjectives that exhibit complex verb-like argument structures unsurprisingly resemble predicates and subsequently, because of their verblike behaviour, conceal their attributive properties and consistently appear in short forms only. This group includes a rather large number of adjectives.

The fourth and most distinct group is that of quasi-determiners (both definite and indefinite). It has been argued that attributive adjectives in Lithuanian differ from true determinatives in that they perform two functions – they modify and determine simultaneously (Trakymaitė 2018). It has also been argued that NPs containing attributive long adjectives form *ad hoc* categories (Holvoet, Spraunienė 2012); and by assuming the morphological definiteness marker an adjective loses its ability to be gradable (scalar), e.g., *balti* 'white.NON-DEF' can become *baltesni* 'whiter' but *baltieji* 'white.DEF' cannot. An *ad hoc* category is established on the basis of a prominent property, e.g., *white*. Many of the adjectives exhibiting the absence of long forms denote undisclosed properties (variatives, similatives), properties of undefined values (approximatives) or rather, not properties but the structure of the category itself (specificity markers, dispersed quantifiers). Therefore, they seem to be losing their attributive adjectival properties,

including the opposition of long and short forms, and seem to be functioning as determinatives more that modifiers. Some of the quasi-determiners render NPs indefinite, e.g., approximatives, variatives, dispersed quantifiers, specificity markers, and consequently show almost a total absence of long forms.

Other quasi-determiners render NPs definite by virtue of their inherent semantic definiteness, e.g., ordinatives and universal quantifiers. Yet, because of the nature of their relational character they, as opposed to other qualitative adjectives, rather resemble relational adjectives that cannot acquire long forms.

In Swedish, all of these quasi-determiners (comparative pronouns like *annan* 'other', *samma* 'same', *sådan* 'such', *likadan* 'similar, alike'; perspective pronouns like *ena* 'one', *höger* 'right', *vänster* 'left', *norra* 'northern'; focusing pronouns *själv* 'self', *egen* 'own', *enda* 'sole, one'; ordinative pronouns like *nästa* 'next', *första* 'first', *sista* 'last') are considered to be relational pronouns because they, in various ways, relate the referent to others with regard to properties or with regard to identity (SAG 2, 236). The borderline between these relational pronouns and adjectives is, in many cases, undefined. The focus is not on any property denoted by the pronoun/adjective, but on the relation between referents. The same can be attributed to Lithuanian quasi-determiners.

As a next step in trying to determine a broader picture of the uses of Lithuanian long and short adjectives, it would be interesting to compile an alternative frequency list of Lithuanian adjectives that are mostly used with long forms and analyse how they map onto the definiteness marking system.

An interesting question briefly touched upon in this article is why certain NPs can be considered taxonomic, e.g., *šaltoji kava* 'the cold.DEF coffee' referring to *frappé* style coffee is an established term, while **šaltasis maistas* 'the cold.DEF meals' cannot. As demonstrated in examples (13) - (16), there are numerous cases of frequently used NPs, e.g., *būdingieji bruožai* 'typical.DEF features' that I would not classify as established taxonomies. A further and deeper study of the established taxonomy of NPs would provide interesting material and insight into the overall ability to establish categories and classifications of the Lithuanian language.

In addition, the analysis of the features typical of the attributive adjectives, such as ordering restrictions and scopal implications (identified by Belk and briefly mentioned in 3.2) affecting interpretation and linear ordering of attributes, is yet another field waiting to be researched.

Finally, the issue of short forms used in established terminology, e.g., *balta* vs *juoda duona* 'white vs black bread' (the latter being bread made from rye flour), *geltonas sūris* 'yellow cheese' referring to a type of fermented cheese, *mobilus* and not *mobilusis* 'mobile.DEF' as an established nominalisation for a mobile phone, needs to be researched and analysed.

Concluding, I would like to add that data-driven research has led me from Lithuanian asymmetry of uses of long versus short adjectival forms to cross-linguistically established minor categories of quasi-determiners, independently established and described in, e.g., CGEL or SAG. I hope that this article will serve as yet another puzzle piece in solving the adjectival (in)definiteness marking in Lithuanian and other languages.

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APPENDIX A

Comments:

- All items shaded in grey exhibit less that 2% of LF in FrD.
- All items removed from the data analysed contained more than 1% of LFs in CCLL. All items included in the analysis contained less than 1% of LFs in CCLL and the collocation analysis was run on all of them.
- For all items removed from the data analysis in this article, collocation list checks have not been made due to high counts of LF to be manually assessed. Also, all these items were intuitively assessed as exhibiting no strange behaviour patterns with regards to their appearance in LFs, e.g., their ability to establish an *ad hoc* category was deemed fully functional, e.g.:
 - sunkieji galvosūkiai 'difficult.DEF puzzles' → Iš pradžių jis išsprendė lengvus, o tada perėjo prie sunkiųjų galvosūkių. 'To begin with, he solved easy [puzzles], and then he moved on to the difficult puzzles.'
 - puikioji lašiša 'splendid salmon' → Vakarienei šiandien puikioji norvegiška lašiša! 'For dinner today, the splendid Norwegian salmon!'
 - keistieji radiniai 'strange.DEF findings' → Mokslininkai nežinojo kaip apibūdinti keistuosius radinius. 'Scientists did not know how to describe the strange findings.'

- The two adjectives in bold (*paprastas* and *individualus*) were included in the data analysis for the reasons explained in the table below and in the text of the article.

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
0	53.	didelis	big/large	n/a	n/a	Under this lexeme, paradigms of 2 ad- jectives are mixed up, viz., <i>didelis</i> and <i>didis</i> . Only compara- tive forms of <i>didelis</i> can assume LFs. Due to this, I have chosen not to include this in the data.
1	64.	naujas	new/novel	1349	17.87	
2	80.	svarbus	important	1157	3.03	
3	105.	geras	good/kind	941	5.10	
4	123.	įvairus	various/varied/miscel- laneous/sundry	852	0.00	
5	141.	bendras	common/joint/shared	778	25.19	
6	156.	mažas	little/small	706	23.80	
7	172.	senas	old/ancient	650	43.85	
8	181.	aukštas	tall/high	627	30.78	
				587	1.53	It was removed from the data analysed in the paper, as in CCLL it showed 9.39% of LF. NB due to high numbers (total count of LFs 2594) it was impos- sible to run a col- location check, but intuitively it seems like an ordinary adjective with no unusual behaviour in relation to appear-
9	199.	sunkus	heavy/difficult/hard	160	0.42	ance with LF vs SF.
10	267.	atskiras	separate/individual/ special/distinct/ detached	460	0.43	

			Translation	Total count of LFs in FrD	% of LFs	Comment
11	300.	reikalingas	needed/required/nec- essary/requisite	410	0.00	
12	310.	paskutinis	last/final	400	17.25	
13	334.	panašus	similar/like/alike/ analogous/resemblant	376	0.00	
14	335.	tikras	true/real/proper	376	36.44	
15	336.	ilgas	long/lengthy	374	2.41	
16	342.	didis	great/famous/sublime	354	90.96	In FrD, presented count is 368. It mistakenly contains 14 forms of <i>didelis</i> . Hence the adjusted number of counts – 354.
17	349.	aiškus	clear/understandable/ explicit/evident	359	0.00	
18	421.	konkretus	concrete/particular/ specific	313	0.00	
19	427.	specialus	special/particular	309	10.03	
20	432.	jaunas	young/youthful/ado- lescent	307	26.06	
21	438.	pastaras	the latter/the recent	305	100.00	
22	474.	laisvas	free/liberal	285	29.83	
23	496.	būdingas	typical/characteristic/ specific	276	0.73	
24	522.	paprastas	simple/ordinary/nor- mal/average	265	6.42	LFs of this adjec- tive are frequently used in terminology (botany, biology, medicine, etc.) cor- responding to the use of Latin <i>vulgaris</i> or similar, e.g., <i>pa- prastieji spuogai</i> (Acne vulgaris). See 1.2 for reasons why it was included in the data analysis (CCLL adjusted data showed 0.72% of LF uses).

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
25	565.	skirtingas	different/unlike/sepa- rate/distinct/diverse	246	0.00	
26	592.	vyresnis	older/senior/superior	239	66.53	
27	594.	artimas	close/familiar/near	236	11.02	
28	603.	baltas	white/clean	234	18.80	
29	613.	gražus	beautiful/pretty/nice/ lovely/picturesque	229	3.06	
30	618.	juodas	black	228	29.39	
31	673.	blogas	bad/evil/poor/wrong/ ill	210	5.24	
32	675.	stiprus	strong/powerful/ mighty	210	6.67	
33	685.	sudėtingas	complex/complicated/ multiplex/elaborate	208	0.48	
34	688.	įdomus	interesting/exciting/ entertaining	207	0.48	
35	700.	gyvas	live/alive/living/ vivid/animate	203	16.75	
36	782.	platus	wide/broad/extensive/ spacious	181	13.26	
37	808.	stambus	large/large-scale/ bulky/hefty	177	4.52	
38	834.	tamsus	dark/overcast/ gloomy/sombre	171	16.96	
39	844.	trumpas	short/brief/laconic	169	5.33	
40	847.	lengvas	easy/light/effortless	168	13.10	
41	849.	brangus	expensive/costly/pre- cious/dear	167	9.58	
42	862.	svetimas	outlandish/strange/ foreign	165	14.55	
43	889.	raudonas	red	159	18.87	
44	891.	šaltas	cold	159	3.77	
		individu-		158	3.16	See 1.2 for reasons why this adjective was included in the analysis. After the collocation analysis of CCLL data, the LF comprise 0.44%
45	893.	alus	individual			of all uses.

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
46	894.	lietuviškas	Lithuanian	158	17.09	
			average/medium/mid-	157	1.27	2 counts of LF at-
47	904.	vidutinis	dle/moderate/normal			tested.
				156	0.64	1 count of LF at- tested. It was re- moved from the data analysed, as in CCLL it showed 2.23% of LFs. Intuitively, it seems like an ordi- nary adjective with no unusual behav- iour in relation to
			serious/solid/sober/			appearance with LF
48	913.	rimtas	grave			vs SF.
49	927.	atviras	open/overt/public/ honest	154	18.18	
			healthy/whole/intact/	150	5.33	
50	960.	sveikas	sound			
51	990.	smulkus	small/petty/fine	146	8.90	
52	1007.	realus	real/realistic/actual	143	9.09	
53	1050.	garsus	famous/prominent/ known/loud	137	29.20	
54	1083.	neaiškus	unclear/uncertain/ob- scure/vague/indistinct	134	0.00	
55	1086.	šiltas	warm	134	2.24	
56	1091.	ypatingas	special/particular/dis- tinct/especial	132	1.52	2 counts of LF at- tested. It was re- moved from the data analysed, as in CCLL it showed 5.80% of LFs.
			useful/beneficial/	132	15.15	
57	1092.	naudingas	helpful			
			anat (maillent (mi	132	1.52	2 counts of LF at- tested. It was re- moved from the data analysed, as in CCLL it showed 2.14% of
58	1096.	puikus	great/excellent/splen- did			it showed 2.14% of LFs.
50	1090.	puikus	aia			LIS.

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
59	1106.	žemas	low/short/inferior	131	14.50	
60	1121.	amžinas	eternal/perpetual/ev- erlasting/timeless	128	29.69	
61	1136.	šventas	holy/sacred/saint/ blessed/taboo	127	48.82	
62	1165.	gilus	deep/abysmal/pro- found/thoughtful	123	2.44	
63	1179.	ramus	calm/quiet/peaceful/ tranquil	122	0.82	1 count of LF at- tested. It was re- moved from the data analysed, as in CCLL it showed 11.50% of LFs.
64	1182.	normalus	normal/regular/ordi- nary/average	121	0.00	
65	1204.	aktyvus	active/energetic/lively	118	7.63	
66	1214.	nemažas	considerable/not small	117	0.00	
67	1262.	siauras	narrow/tight	113	10.62	
68	1289.	savarankiš- kas	independent/autono- mous/self-sufficient	111	0.00	It was removed from the data analysed, as in CCLL it showed 1.19 % of LFs.
69	1294.	vienodas	uniform/equal/same/ homogeneous/like	111	0.00	
70	1296.	keistas	strange/odd/bizarre/ weird	110	1.82	2 counts of LF at- tested. It was re- moved from the data analysed, as in CCLL it showed 1.72 % of LFs.
71	1301.	ryškus	bright/stark	110	0.91	1 count of LF at- tested.
72	1328.	tuščias	empty	108	1.85	2 counts of LF at- tested. It was re- moved from the data analysed, as in CCLL it showed 2.15 % of LFs.
73	1341.	žalias	green	107	18.69	
74	1343.	karštas	hot	106	2.83	
75	1346.	vertas	worthy/worth/deserv- ing/valuable	106	0.00	

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
76	1351.	oficialus	official	105	18.10	
77	1367.		comfortable/conveni-	104	0.00	This adjective in CCLL contained 0.20% of LFs. For unknown reasons, it has a very low count of LFs even though one can es- tablish a category, e.g., <i>patogioji avalynė</i> 'comfortable.DEF footware', <i>pato- gioji kelionių agentūra</i> 'convenient.DEF travel agent', <i>patogusis fote- lis</i> 'comfortable.DEF armchair', etc. In this regard, it is somewhat similar to <i>jdomus</i> .
	1507.	patogus	ent/handy strict/stringent/tight/	103	4.85	siiiiiai to juomus.
78	1377.	griežtas	austere			
79	1383.	ankstyvas	early/precocious/pre- mature	102	48.04	
80	1389.	gausus	abundant/numerous/ plentiful/ample/boun- tiful	102	0.00	
81	1401.	storas	thick/heavy/fat/cor- pulent	102	17.65	
				101	0.99	1 count of LF at- tested. In CCLL, this adjective contained 2018 counts of LFs. It was impossible to calculate the count of SF due to a very high number of homonyms (nouns like <i>lyga</i> 'league', <i>ly-</i> <i>gis</i> 'level', etc.). Yet, I deemed that 2018 is a high number allowing elimination
82	1406.	lygus	equal/level/like/ smooth/flat			of this adjective from the data analysed.

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
			private/personal/pro-	100	1.00	1 count of LF at-
83	1417.	privatus	prietary/individual			tested.
			clean/pure/clear/	100	0.00	
84	1419.	švarus	fresh/immaculate			
				99	14.14	Only comparative
0.5	1404	1	1			forms of this adjec-
85	1424.	ankstus	previous/early	00	41.04	tive assume LFs.
06	1446		pure/net/neat/clear/	98	41.84	
86	1446.	grynas	clean	98	0.00	In CCLL this stime
				98	0.00	In CCLL, this adjec- tive contained 1.48%
						of LFs. It was re-
			dangerous/hazardous/			moved from the data
87	1450.	pavojingas	serious/precarious			analysed.
88	1459.	galutinis	final/ultimate/terminal	97	0.00	
	1.071	guiatino	meagre/insignificant/	96	0.00	
89	1477.	menkas	poor			
			pleasant/enjoyable/	95	2.1	2 counts of LF at-
90	1488.	malonus	kind/nice			tested.
91	1501.	viešas	public/open	95	56.84	
			terrible/horrible/aw-	94	3.19	
92	1502.	baisus	ful/gruesome			
			famous/eminent/sig-	94	5.32	
93	1519.	žymus	nificant/celebrated			
				93	0.00	In CCLL, this adjec-
						tive contained 1.79%
			right/righteous/just/			of LFs. It was re- moved from the data
94	1536.	teisingas	correct/fair/truthful			analysed.
	1000.	tersnigus	optimal/optimum/	92	0.00	unurysed.
95	1548.	optimalus	superb/top-notch			
			further/subsequent/	92	1.09	1 count of LF at-
96	1554.	tolesnis	successive			tested.
				91	1.10	1 count of LF at-
						tested. In CCLL, this
						adjective contained
						1.65% of LFs. It was
97	1558.	ofoltto	effective/efficient/ valid			removed from the
91	1338.	efektyvus	frequent/habitual/pe-	90	0.00	data analysed.
98	1570.	dažnas	riodic/repeated	90	0.00	
	1570.	Guzilas	nouic/repeated			1

No	Rank in FrD	Lexeme	Translation	Total count of LFs in FrD	% of LFs	Comment
	_	_	full/whole/complete/	90	10.00	
99	1579.	pilnas	plump			
100	1614.	sausas	dry/arid/droughty/ dead	88	1.14	1 count of LF at- tested. In CCLL, this adjective contained 17.74% of LFs. It was removed from the data analysed.
101	1625.	lankstus	flexible/supple/ver- satile	87	0.00	In CCLL, this adjec- tive contained 2.76% of LFs. It was re- moved from the data analysed.
102	1628.	modernus	modern/up-to-date/ contemporary	87	19.54	
103	1633.	silpnas	weak/fragile/frail/lax	87	10.34	
104	1638.	universalus	universal/versatile/all- around	87	12.64	
105	1644.	galingas	powerful/mighty/po- tent/strong	86	6.98	
106	1664.	idealus	ideal/perfect	85	34.12	
107	1675.	populiarus	popular	85	2.35	
108	1698.	reikšmingas	significant/meaning- ful/important/weighty	84	0.00	
109	1704.	visiškas	complete/total/full/ absolute/superior/ superb	84	0.00	
110	1706.	atsakingas	responsible/liable/ac- countable	83	0.00	In CCLL, this adjec- tive contained 5.45% of LFs. It was re- moved from the data analysed.
111	1709.	gimtas	native	83	89.16	,

Appendix B Collocations of *konkretus* 'concrete, specific, particular'

No	Collocation	Translation	Counts		
1	daiktavardžiai	nouns	22	22	
2	muzika	music	11	11	
3	linksniai	cases (as in a paradigm of noun cases)	10	10	
4	klausimai	questions	7	7	
5	dalykai	subjects	5	5	
6	NOMINALISA- TION		5		
7	poezija	poetry	4	4	
8	prasmė	meaning	3	3	
9	abstrakcija	abstraction	2	2	
10	dvasingumas	spirituality	2	2	
11	ekonomika	economy	2	2	
12	filosofija	philosophy	2	2	
13	konkretika	specifics	2	2	
14	materialistai	materialists	2	2	
15	objektas	object	2	2	
16	pavidalas	form/shape/guise	2	2	
17	pažinimas	cognition	2	2	
18	politika	politics	2	2	
19	santykiai	relations	2	2	
20	turinys	content	2	2	
21	analogija	analogy	1	86	
22	apraiška	manifestation	1		
23	aspektas	aspect	1		
24	būtis	existence	1		
25	forma	form	1		
26	gėris	good, goodness, kindness	1		
27	intelektas	intellect	1		
28	išraiška	expression	1		
29	kainos	prices	1		

No	Collocation	Translation	Counts			
30	kalba	language	1			
31	klasifikatoriai	classifiers	1			
32	kontekstas (reikšmės)	context (of a meaning)	1			
33	lygmuo	level	1			
34	mainai	exchange	1			
35	materializmas	materialism	1			
36	mokslai	sciences/studies	1			
37	pastoracija	pastoral care	1			
38	postūmis	push/impulse/stimulus	1			
39	pozicija	position	1			
40	programa	programme	1			
41	pusė	side	1			
42	raiška	expression/marking	1			
43	rašymas	writing	1			
44	reikšmė	meaning	1			
45	šalis	country	1			
46	sąvoka	notion	1			
47	simbolis	symbol	1			
48	substratas	substrate	1			
49	sugebėjimas	ability	1			
50	tarpsnis (laiko)	period (of time)	1			
51	terpė	environment	1			
52	tikrovė	reality	1			
53	tikslai	aims/goals	1			
54	transcendencija	transcendence	1			
55	tyrimas	research/investigation	1			
56	žmogiškumas	humanity	1			
			Total	Terms	Nominalisations	Other
			127	86	5	36
	Percentage:		%			
	Terminology		68.00			
	Nominalisations		4.00			
	Other uses		28.00			

BŪDVARDINĖ LIETUVIŲ KALBOS APIBRĖŽTUMO RAIŠKA – DAR VIENA DĖLIONĖS DALIS: ĮVARDŽIUOTINĖMIS FORMOMIS NEVARTOJAMI KOKYBINIAI BŪDVARDŽIAI

Santrauka

Šiuo Dažninio rašytinės lietuvių kalbos žodyno ir Dabartinės lietuvių kalbos tekstyno duomenimis paremtu tyrimu siekiama atsakyti į klausima, kodėl didelė kokybinių būdvardžių grupė, teoriškai galinti turėti ivardžiuotines formas, jomis nevartojama, ir taip prisidėti prie platesnės diskusijos apie būdvardžių apibrėžtumo raišką. Žodyno pagrindu sudarytas 111 dažniausiai vartojamų būdvardžių, galinčių turėti įvardžiuotines formas, sąrašas, iš kurio, patikrinus tekstyne, net 30 būdvardžių turi mažiau nei 1% įvardžiuotinių formų. Žinoma, kad modifikuotuose daiktavardiniuose junginiuose įvardžiuotinės formos žymi apibrėžtumą, kuris gali būti tiek individo, tiek taksonominės referencijos lygmens. Keliamas klausimas, ar įvardžiuotinių būdvardžio formų nevartojimas yra susijes su neapibrėžtumo raiška. Modifikuoto daiktavardinio junginio gebėjimas steigti kategoriją (taksonominę ar ad hoc) yra svarbus faktorius, lemiantis apibrėžtumo rodiklio (įvardžiuotinės morfemos) atsiradimą. Analizuojama būdvardžių grupė nėra homogeniška: pagal semantinius-pragmatinius požymius arba pagal atliekamas frazės/sakinio funkcijas galima išskirti 4 gana aiškiai apibrėžtus pogrupius. Šie būdvardžiai nesudaro kategorijų (taksonominių ar *ad hoc*) ir dėl šios priežasties neįgyja morfologinio apibrėžtumo žymiklio dėl dviejų priežasčių: 1) jais nusakomos ypatybės dėl semantinių-pragmatinių priežasčių nėra tinkamos kategorijai sudaryti; 2) jais nusakomos ne ypatybės, bet perteikiama kvantifikacija, posesyvumas, panašumas, specifiškumas, eiliškumas ir pan. Pastarąjį požymį turintys būdvardžiai atlieka quasi determinantų vaidmenį.

ABBREVIATIONS

BNC – British National Corpus CCLL – Corpus of the Contemporary Lithuanian Language CGEL – The Cambridge Grammar of the English Language 2002 DA – Danish DEF – definite FrD – Frequency Dictionary of the Written Lithuanian Language 2009 Germ. – German Lat. – Latin LF – long form (definite) Lith. – Lithuanian NON-DEF – non-definite NP – noun phrase Rus. – Russian SAG – Svenska akademiens grammatik 1999 SF – short form (non-definite) SW – Swedish Swed. – Swedish

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