

# *Rytą or ryte? Vakarą or vakare?* Competition between the accusative and locative in Lithuanian temporal expressions denoting parts of the day

Nina Kapušová

Department of Linguistics and Baltic Languages  
Masaryk University  
Arna Nováka 1  
602 00 Brno, Czech Republic  
E-mail: [nina.kapusova@phil.muni.cz](mailto:nina.kapusova@phil.muni.cz)  
ORCID iD: <https://orcid.org/0000-0001-9602-3837>

**Abstract.** This paper aims to reveal differences between the competing accusative and locative forms of Lithuanian temporal expressions denoting parts of the day (*rytas* ‘morning’, *diena* ‘day’, *vakaras* ‘evening’, *naktis* ‘night’). Since the accusative of time expresses a wider semantic spectrum, it was first necessary, using a prototypical approach, to define exactly what the morphosyntactic and semantic characteristics of the competing pairs are (i.e., prototypical verbal modifiers expressing location of an action/state in time). Then, analysing the *DLKT* corpus data confirmed that the competition between the accusative and locative forms is present using the word *vakaras* ‘evening’ and *rytas* ‘morning’. This study reveals that the choice of case depends on the interaction of the given word with the (non)presence of an attribute and on the concrete type of attribute as well. It was confirmed that the accusatives of all the studied words predominate over the locatives, but the strength of the dominance varies. This may be caused by the different degree of adverbialization of the locative forms and by the different semantic implications embodied in the lexemes themselves, which is related to how successfully the locative resists the expansion of the accusative.

**Keywords:** Lithuanian temporal expressions, parts of the day, locative, accusative, prototype theory, corpus analysis

Submitted: 31/08/2023. Accepted: 10/11/2023

Copyright © 2023 Nina Kapušová. Published by Vilnius University Press

This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## 1 Introduction

In Lithuanian, different grammatical forms can express temporal semantics: numerical expressions (dates), verbs (grammatical tense – past, present, future; verb forms – gerund, etc.), adverbs of time (*šiandien* ‘today’), temporal prepositions or postpositions in conjunction with a noun (*prieš valandą* ‘before an hour’, *pirmos valandos metu* ‘during the first hour’, etc.) as can, quite abundantly, lexemes with the lexical meaning of time in a particular case form. Thus, in Lithuanian, even cases (all except the vocative) themselves can carry temporal meaning. As we shall see, temporal expressions can be understood as flexible constructions where multiple language levels intersect. It is essential to understand that not all lexemes expressing time are used in the same forms for the same temporal meanings. For example, to answer the question ‘When?’, the accusative *vasarą* ‘in the summer’ or the locative *praeityje* ‘in the past’ can be used. Sometimes the same case, but with different syntactic involvement, can express several different temporal meanings, and sometimes two or even more different cases can express the same temporal meaning. In grammar, we often do not find additional information explaining what the distribution of cases within synonymous temporal expressions depends on. Therefore, it can be argued that this issue is still quite understudied in empirical data, as stated by Valiulytė (1998, 225).

This research takes a closer look at the competition between the accusative and the locative cases in the meaning of location in time, cf. the synonymous pairs: *rytq* [ACC.SG] / *ryte* [LOC.SG] ‘in the morning’, *vakarq* [ACC.SG] / *vakare* [LOC.SG] ‘in the evening’, *dienq* [ACC.SG] / *dienoje* [LOC.SG] ‘during the day’ and *naktj* [ACC.SG] / *naktyje* [LOC.SG] ‘at night’). Valiulytė (1998, 193–199, 220–221, 224–226) claims that in this meaning the locative and accusative forms are entirely synonymous, differing only in the frequency of use, and adds that the locative in time expressions is generally marginal in the standard language (*bendrinė kalba*); in other words, it is stylistically marked and lexically limited. However, this does not apply to the locatives *ryte* ‘in the morning’ and *vakare* ‘in the evening’, which somehow differ. Proceeding from the above-mentioned author’s claims, I formulate the following hypotheses to be verified on empirical data: 1) the most significant competition between the accusative and the locative is shown by the word *vakaras* ‘evening’; significant competition can be found using the word *rytas* ‘morning’, while there is no such competition when using *diena* ‘day’ and *naktis* ‘night’; 2) within competing pairs, the choice of the case is related to the (non)presence and to the type of an attribute<sup>1</sup> (*pažymintys*); 3) the widespread occurrence of the locative forms *ryte* ‘in the morning’ and *vakare* ‘in the evening’ and their very frequent co-occurrence with adverbs of time indicates their partial adverbialization. Thus, the main aim of this study is to answer the question of what is involved in the competition between accusatives and locatives of parts of the day, expressing a location in time, and to determine what the choice of the case can be related with.

---

<sup>1</sup> I will use the term *attribute* in order to clearly separate two different functions, since the term *modifier* will be used here in the sense of a (non-)prototypical verbal modifier expressing the temporal location, duration or frequency of a predication.

## 2 Data and methodological frameworks

To achieve the aim of this research, it is first necessary to reflect on the morpho-syntactic involvement of the temporal expressions under study, then on the semantic categories they express, and finally, statistically process the empirical data. Therefore, this paper first looks at how the investigated time expressions are classified in traditional Lithuanian grammars written by Ambrasas (1994, 2005), Šukys (1998), Valiulytė (1998) and Laigoniūtė (1957). Then, based on more recent works on Lithuanian grammar, namely Holvoet & Semeniūnė (2004), Holvoet & Mikulskas (2005) and Holvoet & Mikulskas (2009),<sup>2</sup> it will be explained why the traditional classification of time expressions can no longer be considered sufficient. Moreover, this will help us understand which temporal expressions belong to our subject-matter, and which do not. The core of this research, however, lies in the analysis of empirical data obtained from the Corpus of the Contemporary Lithuanian Language (*Dabartinės lietuvių kalbos tekstynas* 1998–2016). A total of 126,737,751 words from three domains – fiction, non-fiction, and journalism – was analysed. The two remaining domains of the corpus – spoken language and administrative literature – were left out of the analysis. Temporal expressions, as well as other language phenomena, might behave differently in spoken language, and thus, separate research should be done on this topic. For administrative literature, a high rate of repetitive temporal expressions without contextual involvement (e.g., dates) is assumed, which could possibly distort the statistics. However, the omitted corpus domains constitute only 10.3% of its total size, and their omission should not affect the results. Since there is no tool to filter the necessary data in the corpus, a significant part of the data sorting process has to be done manually. First, all occurrences of accusative and locative forms of the given parts of the day were downloaded from the corpus and deduplicated to make the statistics as accurate as possible. For statistical purposes, the word *darbas* ‘a work’ was chosen as a baseline using a frequency dictionary (Utko 2009).<sup>3</sup> Then, for each part of the day (and the baseline, too), a relevant random sample of 1000 accusatives and 1000 locatives<sup>4</sup> was selected. By the relevant sample I mean occurrences, which are further morphosyntactically and semantically specified in Section 5. So, other homonymous but morpho-syntactically and semantically different occurrences had to be found and manually excluded from the data.<sup>5</sup> The ready samples were first sorted according to the (non)presence of an attribute and then also according to

<sup>2</sup> These publications are, together with Holvoet & Judžentis (2003), part of a three-volume work *Lietuvių kalbos gramatikos darbai* (Studies in Lithuanian Grammar).

<sup>3</sup> The first abstract noun in the list of most used words, in 14th place in the frequency dictionary.

<sup>4</sup> This does not apply to locatives *dienoje* ‘during the day’ and *naktyje* ‘at night’, however, because the total number of their occurrences is smaller (see Figure 4).

<sup>5</sup> For instance, a verbal adverb (*būdinys*) denoting the character of an action, e.g., *Rūta jis ryte rijo akimis*. ‘He literally devoured Rūta with his eyes.’; greetings, e.g., *labq vakarq, bran-gioji* ‘good evening, dear’, etc.

the types of attributes. The numerical data obtained in this way were used for modelling logistic regression figures, described in detail in Section 6.

The corpus material is expected to help reveal connections between the formal realisations and functional aspects of selected temporal expressions. Corpora, in general, offer the linguistic intuition of many speakers, which allows general patterns to be discerned and sometimes even reveals something that had previously gone unnoticed. On the other hand, it is necessary to realise that no corpus findings can be considered exhaustive and their interpretation must still be evaluated cautiously and critically. As McEnery, Xiao & Tono (2006, 7) write, the aim is “to find the balance between the use of corpus data and the use of one’s intuition”. It should further be remembered that corpora reflect typical language use. A high rate of occurrence of a particular form in the corpus means that this form is frequent, broadly accepted by speakers and very likely to occur in language use. In contrast, a low frequency of occurrence does not simply imply that such a form is not admissible but may be indicative of something else, for example, a deliberate intention on the part of authors to distinguish themselves stylistically or to achieve some other creative goal: “An occurrence might be significant in a text precisely because it is rare in a corpus. But unexpectedness is recognisable only against the norm” (Stubbs 2001b, 149–172, as cited in McEnery, Xiao & Tono 2006, 138).

### 3 Traditional approach to the accusative and locative of time

At this point, let me first summarise how the accusative and locative forms of parts of the day were traditionally characterised in older Lithuanian scholarly literature.

Ambrazas (2005, 535–549) defines our selected temporal expressions with the accusative as follows:

- 1) adverbials of time (*laiko aplinkybės*), expressing
  - a. the moment of action (*naktij pabudo* ‘woke up at night’)
  - b. the period of action (*vidudienij ilsisi* ‘relaxes at noon’)
  - c. the frequency of action (*ateina dažnq vakarq* ‘often comes in the evening, lit. \*in frequent evening’),

and their subtype, so-called

- a. adverbial modifier in a noun phrase (*miškas naktij* ‘forest at night’)
- b. adverbial modifier in an adverbial phrase (*anksti rytq* ‘early in the morning’)

- 2) adverbials of quantity (*kiekio aplinkybės*), expressing
  - a. duration of an action (*laksté visq rytq* ‘was running all morning’)

Šukys's (1998, 211–219) definitions slightly differ. He assigns temporal expressions answering the question 'How long?' to adverbials of time and defines temporal expressions answering the question 'How much time?' (*Kur rasti nors dieną baigtį darbui?* 'Where to find at least a day to finish work?') as adverbials of quantity.<sup>6</sup> He further mentions the so-called attributive accusative (*pažymimasis galininkas*), which may have a temporal meaning, e.g., *Darbas naktį brangiau mokamas*. 'Work at night is more expensive'.

Valiulytė (1998, 244–248) offers interesting reflections on the category of duration: cf. *laukė ryta* 'was waiting in the morning' → 'When?' and *laukė visą ryta* 'was waiting all morning' → 'How long?'. Only the accusative form of lexemes expressing units of time (e.g., *valanda* 'hour', *metai* 'year', or *dieną* in the meaning '24 hrs.' etc.) can express the duration of an action without an agreeing attribute. For other temporal lexemes, such meaning is present only when they occur in sentences with prefixed perfective aspect verbs expressing an action with limited or long-lasting duration: *prarymojau naktį* 'I rested the (whole) night.' ('How long?'); otherwise, the meaning differs from duration, cf. *rymojau naktį* 'I was resting at night.' ('When?'). The author adds that even with some unprefixed verbs, a temporal expression can carry the meaning of duration, but only from the broader context can we determine whether we mean to say how long someone has been waiting for the person in question or when they were waiting for them: *laukia jo vakarą* 'is waiting for him in the evening/the (whole) evening'. In all other instances, the meaning of duration is realised only in the presence of one of the synonymous attributes: *visas*, *kiauras*, *ištisas* 'whole, entire' or of numeral quantifiers: *vienas* 'one', *du* 'two' etc.

Regarding the locative forms of parts of the day, Ambrazas (2005, 536–537, 553–554) defines them as adverbials of time expressing a moment or a period of action, saying that this case is typical primarily for parts of the day formed by prefixation, e.g., *susirinko pa-vakary* 'gathered at eventide'. Apart from the frequent locative *vakare*, the other parts of the day rarely occur in the locative form, and the locative *dienoje* always does so only with an agreeing attribute, e.g., *grīžo anoj dienoj* 'returned the other day'. The frequent form *vakare* often occurs together with adverbs of time as an adverbial compound, e.g., *rytoj vakare* 'tomorrow evening', and it can even figure as a subtype of an adverbial of manner (*būdo aplinkybės*) as a compound with a verbal noun expressing a temporal meaning, e.g., *šauksmas vakare* 'cry in the evening'.

Šukys (1998, 274–275, 294–300) states that the locative case mainly functions as an adverbial of place, more rarely of time. Which meaning of the locative is realised depends

<sup>6</sup> He adds that although such expressions retain the meaning of the object (which is evidenced by the fact that the accusative turns into the genitive in the negation), certain nouns (with certain semantics) in conjunction with certain verbs take on the meaning of quantity (Šukys 1998, 218). Unfortunately, he does not specify this vague statement.

mainly on the lexical meaning of the noun itself. Šukys argues that the local meaning of the case is probably primary in temporal expressions as well, but the lexical meaning of the lexeme itself determines the temporal meaning of the whole temporal expression. The locative is often used with other lexemes than the parts of the day (e.g., *vaikystėje* ‘in childhood’, etc.), often expressing a wider time span. He states that except for *vakare* ‘in the evening’ (which is, in contrast, more common in the standard language compared to *vakarq* ‘in the evening’), locatives of the parts of the day are mainly characteristic of dialects and rarely occur in fiction: *Naktyje snigo*. ‘It was snowing at night’, *Ryte viskq išgrybavo*. ‘In the morning, all the mushrooms were gathered’. Šukys mentions one more semantic category for locative forms, namely the time interval in which something happens several times: *Laiškai išimami du kartus dienoje*. ‘Letters are collected twice a day’ instead of which, however, in the standard language, the prepositional phrase *per + ACC* has become established (e.g., *du kartus per dienq* ‘twice a day’).

Laigonaite (1957, 15–22) touches upon the diachronic aspect of the use of Lithuanian locatives. While some linguists<sup>7</sup> claim the temporal meaning of the locative has gradually evolved from its primary local meaning, she argues that there is no reason to associate the temporal locative with the local inessive. Since in a sentence the locative of time only answers the question of when something happens, the temporal meaning of the locative can be treated as existing in parallel next to its local meaning. On the other hand, a few paragraphs later, Laigonaite adds that the locative of time is clearly lexically restricted, used only in certain time-denoting words (such as *ateityje* ‘in the future’, *jaunystėje* ‘in youth’, etc.), but sometimes the locative form can be interpreted in two ways, cf. *penkmečio pabaigoje* ‘at the end of a five-year period’ (temporal meaning), but *knygos pabaigoje* ‘at the end of a book’ (local meaning). The author explains this by the fact that the meaning of the locative, like any other case, often depends on what word the locative expression is associated with in the sentence. Moreover, the realisation of the meaning can, in her view, also depend on the context – with some abstract words it is difficult to distinguish whether the locative expression is denoting place or time, and it depends on what question we are answering – ‘Where?’ or ‘When?’, e.g., *Savanoris buvo priimtas toje naujoje kovoje už žemę, už duoną*. ‘The volunteer was accepted in that new battle / during that new battle for land, for bread’. In her words, such expressions stand on the border between the two meanings of the locative. Thus, Laigonaite’s statement that the locative of time in contemporary Lithuanian is just as independent in terms of meaning as the locative of place might lack a more detailed argumentation. If the temporal meaning of the locative is related to the lexical meaning of the noun itself or of the associated noun, or even to the context, are there really two separate meanings of the locative existing side-by-side? She further argues that the temporal locative is today

---

<sup>7</sup> Laigonaite (1975, 17) mentions B. Delbrück and J. Jablonskis.

used considerably less frequently than in old writings, which she explains by the influence of translations from Polish and other languages. For the locatives *ryte* and *vakare*, she states that these are partially adverbialized and used much more frequently than other forms of these words. She argues that they occur very often in collocation with an adverb of time, intensifying their meaning, e.g., *jis grīžo vēlai vakare* ‘he returned late in the evening’. However, she points out that it would be wrong to consider these expressions as true adverbs, because they are not yet completely isolated, as evidenced by the fact that they also occur with agreeing attributes, e.g., *Kur eisi tokiam vēlam vakare?* ‘Where will you go so late in the evening?’ Still, when an agreeing attribute is present, the accusative form is preferred. Of interest is Laigonaite’s prediction (1957, 20) that these locative forms may cease to be used with agreeing attributes altogether over time and thus will much more actively lean towards adverbs.

#### 4 The (non-)prototypical approach to the accusative and locative of time

Since the accusative forms of parts of the day can also play a different role in a sentence than the role of a time expression, it is necessary to clarify and illustrate which accusatives belong to the subject matter of this research and which do not. The analysis performed here is based on an understanding of the case as a prototypical grammatical category, from which the very definition of time expressions as prototypical categories also follows.

Most of the temporal expressions could be appropriately characterised as adverbials of time. Although this temporal adverbial can be formally represented in the same way as the object of the predication (by the accusative), it is easy to distinguish it from the object, since it can be omitted. However, there are also sentences with such accusative forms that semantically express the temporal setting of an action or state, while syntactically standing in the position of an object (1) and even behaving as an object under certain conditions, as illustrated by Holvoet and Seménienė (2005, 61) on the following examples:

- (1) *Išlaukēme vieną valandą.*  
 PFV.wait.PST.1PL one.ACC.SG hour.ACC.SG  
 ‘We have been waiting for one hour.’
- (2) *Dar neišlaukēme vienos valandos.*  
 yet NEG.PFV.wait.PST.1PL one.GEN.SG hour.GEN.SG  
 ‘We haven’t waited one hour yet.’
- (3) *Jau viena valanda išlaukta.*  
 yet one.NOM.SG. hour.NOM.SG PFV.wait.PPP  
 ‘One hour has been waited.’

Notice the change of the accusative to the genitive in the negative sentence (2) and the change of the accusative to the nominative in the passive sentence (3), which are both typical features of the Lithuanian object. In such a case, the duration of an action expressed by the accusative form in sentence (1) cannot be omitted because it is a necessary part of the predication. Holvoet and Seménienė (2005, 61) offer a solution, arguing that “the noun denoted by it (accusative of time) semantically takes an intermediate position between the adverbial of time and the object which is covered by that action”. Thus, not all temporal expressions expressed by cases can be exclusively defined as adverbials of time or/and quantity, as the traditional grammars mentioned above do. Some Lithuanian temporal expressions are formally and functionally closer to objects, and therefore, they are excellent evidence that there is actually no strict boundary between grammar and semantics, just as there is no strict boundary between grammatical and semantic cases.

Based on that, I will establish a continuum of different accusative forms of temporal lexemes. It represents an imaginary scale of an abstract grammatical category on which a given expression is either a realisation of its absolute prototype<sup>8</sup>, or it approaches or moves away from this prototype. One side of the following scale (Figure 1) represents what we traditionally call a direct object, and the other side of this continuum represents what we traditionally call an adverbial of time. While the object in a sentence is part of the primary predication of the verb (it expresses the verb’s argument, i.e., it necessarily completes the verb), the adverbial is connected to the verb by a secondary predication (it expresses the temporal location, duration, or frequency of the action, i.e., it modifies the verb). This is why I will use terms according to Holvoet and Čižik-Prokaševa (2005, 65) – verbal complement (*veiksmažodžio valdinys*) and verbal modifier (*veiksmažodžio modifikatorius*).

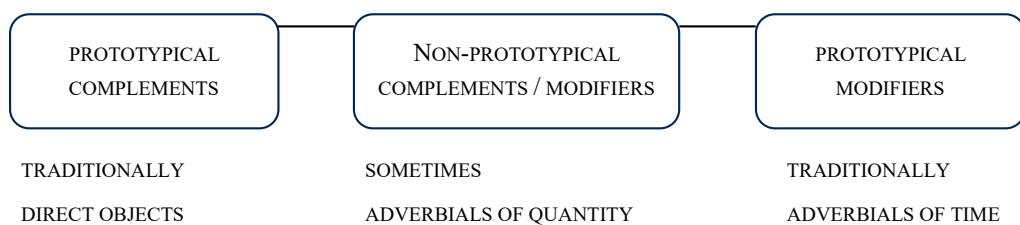


Figure 1. Scale representing the syntactic functions of accusative forms of parts of the day, based on the criterion of prototypicality

As Holvoet and Čižik-Prokaševa (2005, 65–70) mention, the main criterion for distinguishing complements and modifiers from each other is determining whether the expression being examined enters the main or the complementary predication, which can

<sup>8</sup> Prototype here is understood as “a correlation of typical semantic, syntactic and morpho-syntactic features”, as defined by Holvoet and Mikulskas (2005, 8).

be detected using a simple omission test. In addition to this, the authors also carry out a pronominalisation test, which can be used for the same purpose. In the following section, I attempt to comprehensively describe all the tests that can be used to distinguish the three positions on our established scale. As we will see (Figure 2), the results of the tests are perfectly reversed in the case of prototypes of the scale, while the intermediate (non-prototypical) position shows signs from both sides.

	Prototypical complements	Non-prototypical complements / modifiers	Prototypical modifiers
Temporal semantics	–	+	+
Omission test	–	–	+
Pronominalisation test	–	–	+
Passivisation test	+	+	–
Negation test	+	+ / –	–

Figure 2. Tests for distinguishing verbal complements and modifiers

I further illustrate the tests and their results on examples from the *DLKT* corpus. The following sentence can serve as an example of a prototypical verbal complement:

- (4) *Alberta pradējo verkti sakydama, kad sugadinau visq vakarq.*  
 Alberta start.PST.3 cry.INF say.TRGR.F that PFV.ruin.PST.1SG  
 whole.ACC.SG evening.ACC.SG  
 ‘Alberta started crying, saying I ruined the whole evening.’

In sentence (4), the highlighted noun phrase does not carry any temporal meaning, because it does not answer any time question – ‘When? How long? How often?’ – but instead answers the question ‘What?’ This phrase is part of the main predication; it cannot be omitted (→ \**Alberta pradējo verkti sakydama, kad sugadinau*. ‘\*Alberta started crying saying that I ruined.’). As for all other prototypical objects, it cannot be replaced by a pronoun (→ \**Sugadinau ir tai padariau visq vakarq*. ‘\*I ruined, and I did that the whole evening.’), and it can also be transformed into a passive sentence (→ *Visas vakaras [yra mano] sugadintas*. ‘The whole evening is ruined [by me].’) When turning into negation, the prototypical accusative verbal complement changes into the genitive (→ *Nesugadinau viso vakaro*. ‘I did not ruin the whole evening.’).

To illustrate the opposite pole of the scale, e.g., the prototypical verbal modifier, let’s take a look at this example:

- (5) *Vėlyvq kovo 16 dienos vakarq liovësi*  
 late.ACC.SG March.GEN.SG 16\_dienas GEN.SG evening.ACC.SG stop.PST.3.REFL  
*plakusi šio tauraus, didelio žmogaus širdis.*  
 beat.PAP.FSG this.GEN.SG noble.GEN.SG great.GEN.SG man.GEN.SG heart.NOM.SG  
 ‘In the late evening of March 16, the heart of this noble great man stopped beating.’

In sentence (5), the highlighted noun phrase carries out clear temporal semantics – it answers the question ‘When?’ and not ‘What?’ Unlike the previous example, it is not part of the main predication and can be omitted; the temporal expression is optional here (→ *Šio tauras, didelio žmogaus širdis liovësi plakusi*. ‘The heart of this noble great man stopped beating.’). This noun phrase can also be pronominalised (→ *Širdis liovësi plakusi ir tai jvyko vėlyvq kovo 16 dienos vakarq*. ‘The heart stopped beating, and it did that in the late evening of March 16.’). Finally, since it does not express the object affected by the action, it cannot be passivized, and in the negative sentence it remains unchanged (→ *Vėlyvq kovo 16 dienos vakarq nesiliovë plakusi [...] širdis*. ‘The heart of [...] did not stop beating in the late evening of March 16.’).

The most interesting situation is represented by the middle one, a so-called non-prototypical verbal complement or non-prototypical verbal modifier, which is sometimes classified as an adverbial of quantity, for instance:

- (6) *Jeigu poetas išbūdavo visq vakarq,*  
 if poet.NOM.SG PFV.be.FREQ.3 whole.ACC.SG evening.ACC.SG  
*pastarqj laikydavo pasisekusi.*  
 latter.ACC.SG consider.FREQ.3 successful.INS.SG  
 ‘If the poet spent the whole evening, the latter was considered successful.’

Here, the temporal semantics is present, but the object’s meaning (at least partial) cannot be ignored either. This is proved by the fact that the morphosyntax of the Lithuanian sentence allows us to ask about the highlighted noun phrase in two different ways at the same time – ‘What did he spend?’ and ‘How much time did he spend?’<sup>9</sup> The first question is characteristic for identifying the complement, while the second for identifying the modifier. Besides, we cannot omit the highlighted phrase to preserve the sense of the sentence (→ \**Jeigu poetas išbūdavo, pastarqj [visq vakarq] laikydavo pasisekusi.* ‘\*If the poet spent, the latter [the whole evening] was considered successful.’), neither can we pronominalise it (→ \**Poetas išbūdavo ir tai padaré visq vakarq.* ‘\*The poet spent and he did that the whole evening.’). On the other hand, the passive can be formed (→ *Visas poeto išbūtas vakaras*. ‘The whole evening spent by the poet.’). Holvoet and

<sup>9</sup> The Lithuanian verb *išbūti* ‘to stay, to spend’ is the perfective variant of the imperfective verb *būti* ‘to be’, which is, of course, a prototypical intransitive verb, but just by adding the prefix *iš-*, the verb acquires a certain degree of transitivity, and so the noun phrase under observation becomes affected by the action.

Judžentis (2004, 70) claim that when using this type of phrase (i.e., that is semantically closer to a modifier but syntactically closer to a complement), both variants are admissible in the negation, as they illustrate by the following examples:

(7) <i>Jis</i>	<i>neišsėdėjo</i>	<i>né</i>	<i>penkių</i>	<i>minučių.</i>
he.NOM	NEG.PFV.sit.PST.3	not_even.PRT	five.GEN.PL	minute.GEN.PL

(8) <i>Jis</i>	<i>neišsėdėjo</i>	<i>né</i>	<i>penkias</i>	<i>minutes.</i>
he.NOM	NEG.PFV.sit.PST.3	not_even.PRT	five.ACC.PL	minute.ACC.PL

‘He didn’t even sit for five minutes. / He didn’t even spend five minutes by sitting.’

In their view, the choice of the genitive case is optional here, but if there is a “true object” in the sentence, the temporal expression is also preferred in the genitive form, c.f. *Laikraščio jis nepaskaitė né penkių minučių.* ‘He didn’t read the newspaper even five minutes’. Therefore, I put a + / – sign in the table by the negation test. Still, it must be stressed that a separate corpus analysis on this issue should be done.<sup>10</sup> In any case, such non-prototypical instantiations exhibit both complement and modifier characteristics. This concept is undeniably related to the nature of the verb. Its transitivity plays the primary role and must also be understood as a prototypical grammatical category. Prototypical complements only complement prototypically transitive verbs; prototypical modifiers modify only prototypically intransitive verbs, and non-prototypical complements/modifiers are bound with verbs with varying degrees of transitivity. This idea is, in fact, excellently reflected in the behaviour of the phrases under study in the presence of negation.

To bring this all together, it is crucial to understand Figure 1 as an imaginary continuum on which a certain temporal lexeme in the accusative form moves. The more it moves from the prototypical complement towards the prototypical modifier, the more the case (and with it the entire noun phrase) loses its grammatical function and acquires a semantic function, and simultaneously it moves away from the core of the sentence (i.e., the main predication) to its periphery (i.e., the secondary predication) and thus becomes optional.

Regarding the locative, such a scale is not necessary, since temporal expressions in the locative always play the role of a prototypical verbal modifier, as illustrated by this example from the *DLKT*:

(9) <i>ryte</i>	<i>išsiskirsim</i>	<i>visam</i>	<i>laikui</i>
morning.LOC.SG	PFV.REFL.skirti.FUT.1PL	whole.DAT.SG	time.DAT.SG
‘we will part forever in the morning’			

<sup>10</sup> I searched in the corpus for the negative form of this verb. Indeed, there are sentences with both the genitive (e.g., *neišbuvo net keturių mėnesių* ‘didn’t even spend four months’) and the accusative (e.g., *dar neišbuvo dvejus metus* ‘has not yet spent two years’). Anyway, for more reliable conclusions, an extra analysis would be necessary.

Such a temporal expression is always just an optional part of the main predication and can be omitted (→ *Išsiskirsim visam laikui*. ‘We will part forever.’). Like other prototypical verbal modifiers, it can be pronominalised (→ *Išsiskirsim visam laikui ir tai padarysim rytē*. ‘We will part forever, and we will do that in the morning.’), though it cannot be passivized, and its form does not change in the negative sentence (→ *Rytē neišsiskirsim visam laikui*. ‘We will not part forever in the morning.’).

## 5 Morpho-syntactic and semantic characteristics of analysed competing pairs

Before interpreting the obtained corpus results, it is crucial to summarise the nature of the competing locative and accusative pairs which were included in the analysis.

Logically, prototypical verbal complements in the accusative do not express any temporal semantics. On the other hand, prototypical verbal modifiers in the accusative can express three different semantic categories. Since the semantic classification of temporal expression is not universally settled,<sup>11</sup> for the present purposes I propose the following, together with the examples from the *DLKT*:

- 1) **temporal location of an action/state** – a punctual time aspect, a moment in time (asking ‘When or what time something happens or is happening?’), e.g.: *Antrą vakarą Lina jau taip nebesubėjo*. ‘Lina was no longer in such a hurry on the second evening’,
- 2) **duration of an action/state** – a durative time aspect, a period in time (asking ‘How long does something go on? How much time does something take?’), e.g.: *Visą rytą Ievutė man rašinėja SMS*. ‘The whole morning, Ievutė is writing me texts’,
- 3) **repetition of an action/state** – a frequentative time aspect, a moment or a period in time (asking ‘When does something happen or is it happening? How often does something happen or is it happening?’), e.g.: *Po du žmones kas naktį saugojo bažnyčią*. ‘Two people were protecting the church every night.’

Non-prototypical verbal modifiers/complements always carry only one semantic temporal category – duration (for instance, see sentence (6)).

Compared to this, prototypical verbal modifiers in the locative also express one single semantic category, but in this case – temporal location (for instance, see sentence (9)).

<sup>11</sup> The semantic categories mentioned by Ambrasas (2005) are based primarily on the works on Lithuanian adverbs written by Ulvydas (2000). Valiulytė (1998) defines them on a basic division into coinciding and not coinciding time. We can also mention the excellent overview of temporal semantics made by Makauskaitė (2016).

Hence, the sample under analysis includes competing temporal expressions in the accusative and locative forms, both of which can be morphosyntactically defined as prototypical verbal modifiers expressing the same semantic category of temporal location of an action/state.

## 6 Interpretation of results from the DLKT corpus

### 6.1 Competition between accusative and locative forms of parts of the day

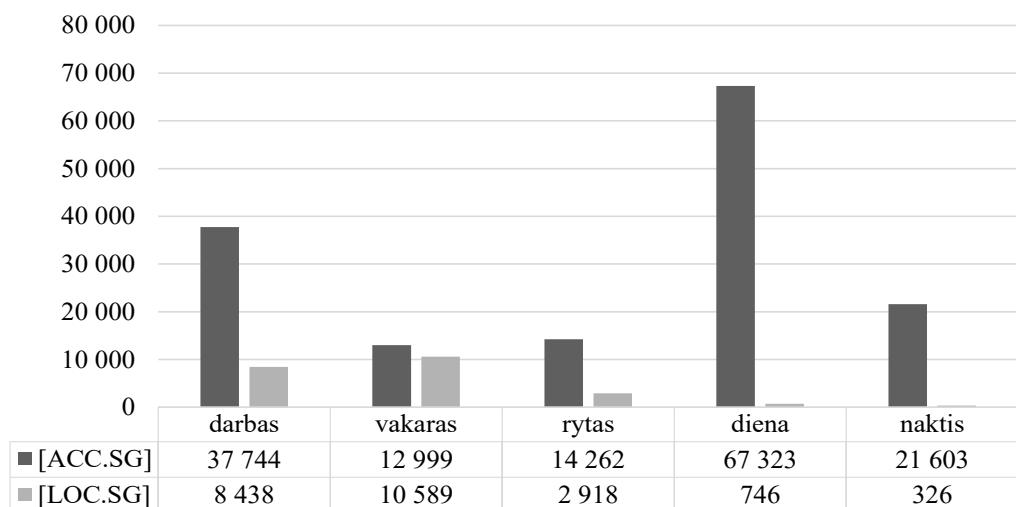


Figure 3. Frequency of the accusative and locative forms in the selected *DLKT* corpus domains

This graph shows the deduplicated occurrences of the accusative and locative forms of the researched words in the selected *DLKT* corpus domains. Since there is no tool to sort all accusative occurrences by their semantic subcategories and other criteria, it should be remembered that occurrences of all types are included in this graph. Nevertheless, some interesting interpretations are possible. The graph for the word *darbas* ‘a work’ represents a “typical” distribution of the accusatives and locatives of a basic word without temporal semantics, where the accusatives logically dominate, since we can assume that *darbas* ‘a work’ plays the role of a verbal complement significantly more often than that of a verbal modifier (in this case – of place). Still, with the parts of the days, the accusatives of each also dominate, but most of them are assumed to play the role of a verbal modifier. We can notice the most extensive domination of the accusative of *diena* ‘day’, which can be explained by the fact that this word has several lexical meanings of time (apart from ‘part of the day’, also ‘24 hours’ and ‘calendar day’). The corpus data confirm that the competition

of the accusative and the locative is indeed highest using the word *vakaras* ‘evening’. With the word *rytas* ‘morning’, this competition is reduced but still more significant than that of *dieną* ‘day’ and *naktis* ‘night’. Even if the deviation, which in this case symbolises accusatives other than those relevant for this research, were to be considered, it is reasonable to think that no significant change would occur in the obtained results. For instance, analysing the accusative *vakarq* ‘in the evening’, only 14.2% of 1000 occurrences express other (excluded) meanings that are not synonymous with the meaning of the locative *vakare* ‘in the evening’. Therefore, I assume that the overall distribution of accusatives and locatives of *rytas* ‘morning’, *dieną* ‘day’ and *naktis* ‘night’ would not radically change either, though this is questionable with regard to *vakaras* ‘evening’. In the latter, accusatives probably predominate over locatives a little less than the graph shows, or they are roughly equal or even fall a little below the level of the locatives. Nevertheless, one can at least disagree with the statement that in standard Lithuanian the locative form of *vakaras* ‘evening’ always wins in the competition with the accusative, as stated by Valiulytė (1998, 224) and Šukys (1998, 295). As for the locatives *dienoje* ‘during the day’ and *naktyje* ‘at night’, their number of occurrences is very low. Therefore, I do not consider their competition with the accusatives *dienq* ‘during the day’ and *naktj* ‘at night’ to be confirmed, although systematically these forms seem to be possible and synonymous, e.g., *trečioje dienoje išeina iš kapo jo dvasia* ‘on the third day, his spirit goes out of the tomb’; *tas, kas naktyje kankinas dėl [...]* ‘the one who is suffering in the night from [...]’. It should be added that these locatives often occur in religious or lyrical texts, so their usage is not typical and it is stylistically marked.

## 6.2 (Non)presence of attributes with the accusative and locative forms of parts of the day

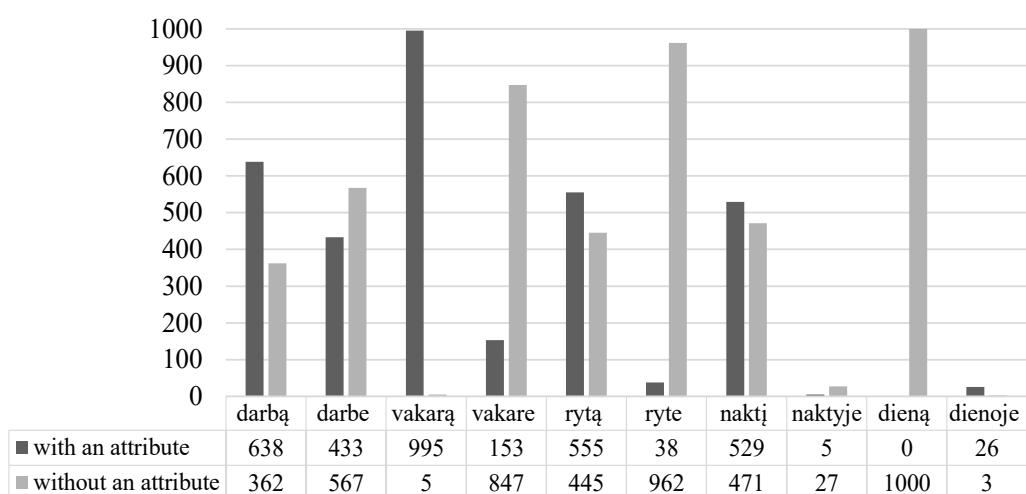


Figure 4. Frequency of parts of the day with and without an attribute in the *DLKT* corpus

This graph was obtained after manually sorting the samples of competing pairs according to the presence or absence of an attribute modifying each of the analysed parts of the day. The given baseline shows clear tendencies – the accusative form is more often used with an attribute and the locative form without one. In comparison, the accusatives *rytq* ‘in the morning’ and *naktj* ‘at night’ behave as expected. However, this pattern is significantly disrupted by the accusatives *dienq* ‘during the day’ and *vakarq* ‘in the evening’. The accusative *dienq* ‘during the day’ reached the maximum score (100%) of occurrences without an attribute. The explanation is simple – the meaning ‘part of the day’ of *dienq* ‘during the day’ is realised only under such conditions (e.g., *Vairuotojai dienq privalėty važinėti su i Jungtomis artimosiomis žibintų šviesomis*. ‘Drivers should drive with their headlights on during the day.’). If *dienq* ‘during the day’ is used with any attribute, one of its other meanings is automatically realised (e.g., *Kitq dienq lauké vizitas į kalėjimq*. ‘The following day there was a visit to the prison.’). The accusative *vakarq* ‘in the evening’ has a similar score, but on the contrary, with the presence of an attribute, although it very rarely occurred also without an attribute (e.g., *Atžvangėjo, atatilindžiavo jau vakarq, temstant*. ‘They came jingling in the evening, when it was getting dark.’<sup>12</sup>). Thus, it can be reasonably concluded that the accusative *vakarq* ‘in the evening’ without an attribute is not common, although due to the nature of the corpus itself, it cannot be categorically rejected. Note that the locatives *ryte* ‘in the morning’ and *vakare* ‘in the evening’ both occur overwhelmingly without an attribute, but at the same time, the locative *vakare* ‘in the evening’ is more often used with attributes than the locative *ryte* ‘in the morning’. Recall that the specific attribute type also comes into play (see the following Section).

In order to determine whether the obtained corpus results are statistically relevant and not random, I will further use a simple logistic regression model. This model tells us if there is a dependency relationship between two variables, in other words, whether we can predict (and if so, with what probability) the occurrence of some phenomenon. In our logistic regression, the independent variable X represents the word interacting with the attribute (*darbas* ‘a work’ as baseline in comparison with *rytas* ‘morning’ and *vakaras* ‘evening’), and the dependent variable Y is the case (binary: 0 represents the accusative, 1 the locative). The established  $H_0$  claims that there is no dependent relationship between our variables, and thus the choice of case cannot be predicted on the basis of interaction between the given word and the presence of its attribute.

<sup>12</sup> This originates from Vaižgantas (1948): *Pragiedruliai*, which is a source of older date. Other occurrences with no attribute possibly imply a contrast with other parts of the day, e.g., *Dienq jie gaudavo: [...], o rytq ir vakarq po litrq šilto vandens*. ‘During the day they received: [...] and a litre of warm water in the morning and evening.’.

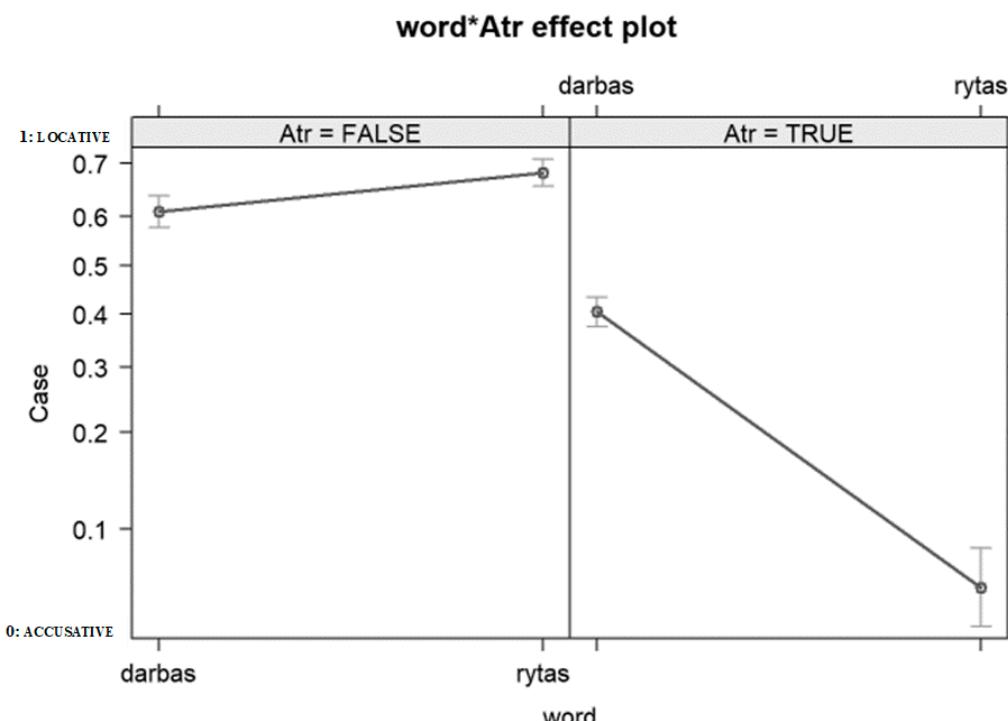


Figure 5. Dependency between the case and the word *rytas* ‘morning’ in interaction with its attributes compared to the baseline *darbas* ‘a work’

The model calculated the Pr coefficient of  $\text{Pr}(\text{wordrytas:AtrTRUE}) < 2e-16$ . Since it is smaller than 0.05, the  $H_0$  can be rejected. Thus, the dependence between the designated variables exists and it is statistically confirmed as strong (sign. code: 0 ‘\*\*\*’). First, it can be observed that for both words it is characteristic that the absence of an attribute ( $\text{Atr}=\text{FALSE}$ ) presupposes the locative (the values are in the second half of the binary axis, approaching 1), while the presence of an attribute ( $\text{Atr}=\text{TRUE}$ ) presupposes the accusative (the values are in the first half of the binary axis, approaching 0). Further, the graph clearly shows how the behaviour of the analysed words changes, when attributes are non-present compared to the situation when attributes are present – the values of *darbas* ‘a work’ move from 0.6 to 0.4 (difference: 0.2); so, the case tends to change from the locative (1) towards the accusative (0), but not nearly as radically as we can see by the word *rytas* ‘morning’, where the values move from about 0.68 to about 0.04 (difference: 0.64).

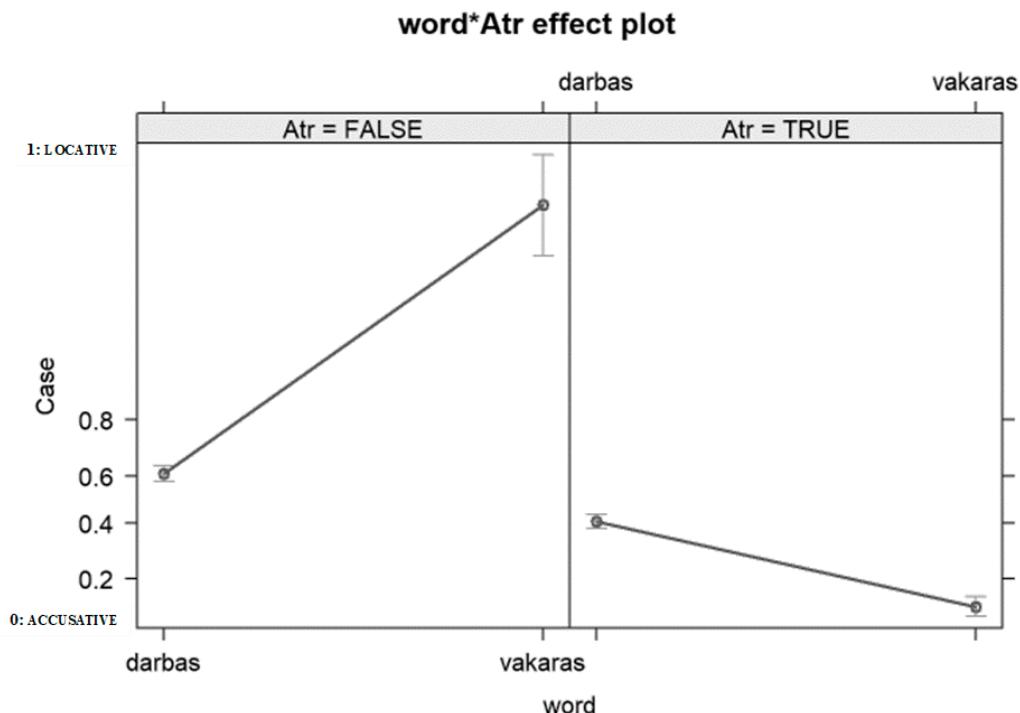


Figure 6. Dependency between the case and the word *vakaras* ‘evening’ in interaction with its attributes compared to the baseline *darbas* ‘a work’

Modelling the word *vakaras* ‘evening’, the same Pr coefficient was obtained:  $\text{wordvakaras:AttrTRUE} < 2e-16$ , as well as the same significance code (0 ‘\*\*\*’). Hence, it was also confirmed that we can with a high probability predict the case based on whether *vakaras* ‘evening’ occurs with or without an attribute. The values of the lines obtained here behave in the same manner as in the previous case – the absence of attributes presupposes locatives (1), while the presence of attributes presupposes accusatives (0). Thus, also similarly, when moving from absent towards present attributes, a much more significant change from locatives towards accusatives is presupposed for *vakaras* ‘evening’ (from 0.95 to 0.1; difference 0.85) than for *darbas* ‘a work’ (from 0.6 to 0.4; difference: 0.2). Moreover, comparing all the three researched words together, we can conclude that the differences of the calculated values moving from the one case towards the other are following: the most significant for *vakaras* ‘evening’ (0.85), then for *rytas* ‘morning’ (0.64), and still, both much more significantly than for the baseline *darbas* ‘a work’ (0.2).

### 6.3 Distribution of different types of attributes, co-occurring with parts of the day

The same samples were sorted not only by the presence or absence of attributes, but also by different types of them. Since their understanding in English and other languages

may differ, they need to be properly illustrated. An agreeing attribute (*derinamasis pažymynys*) means an adjective, pronoun or numeral attribute, usually occurring before the noun and agreeing with it in gender, number and case (e.g., *saulėtq* [ACC.SG] *rytq* [ACC.SG] ‘on a sunny morning’). A non-agreeing attribute (*nederinamasis pažymynys*) is an attribute in the form of a genitive noun, which is very typical in Lithuanian, and it also usually precedes the noun it expands (e.g., *pirmadienio* [GEN.SG] *rytq* [ACC.SG] ‘on Monday morning’, literally ‘in the morning of Monday’). In Lithuanian syntax, even a combination of both is quite often realised (e.g., *vienq* [ACC.SG] *sekmadienio* [GEN.SG] *rytq* [ACC.SG] ‘on one Sunday morning’). Values of the categories not shown in the diagrams are equal to 0%.

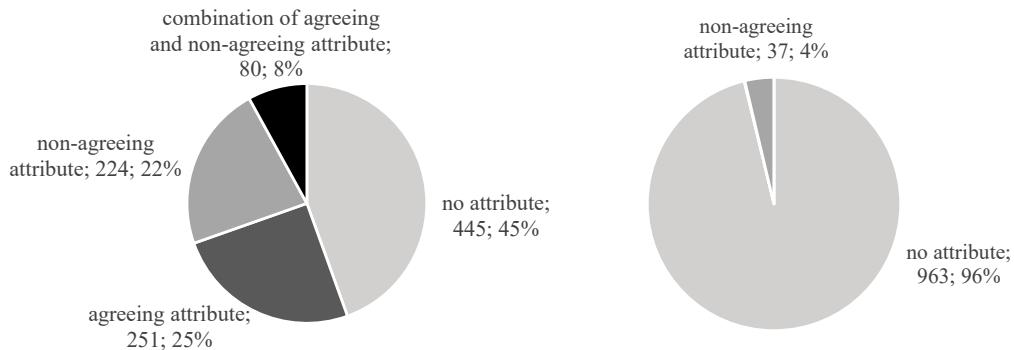


Figure 7. Distribution of attributes co-occurring with the accusative *rytq* ‘in the morning’

Figure 8. Distribution of attributes co-occurring with the locative *ryte* ‘in the morning’

From these pie diagrams, we can observe a very different distribution of attributes for two competing forms of the word *rytas* ‘morning’. Using the accusative form, the distribution of different types of attributes is relatively even – about the same percentage of occurrences without an attribute (45%) and with any kind of attribute (55%). The different types of attributes are evenly distributed as well (22% of non-agreeing, 25% of agreeing attributes and smaller, but perhaps not surprisingly, 8% for a combination of these two). In contrast, almost all occurrences of the locative form are realised without an attribute (e.g., *Ryte darbas prasidėjo apie 7 val. 30 min.* ‘In the morning, work started around 7.30 a.m.’). A small number of the locative occurrences (4%) were found with the non-agreeing attribute. Still, it seems that with a non-agreeing attribute, the accusative form (e.g., *Aureliją kovo 1-osios rytq paskambino Jolantai*. ‘Aurelijus called Jolanta on the morning of March 1.’) is preferred over the locative one (e.g., *Tos dienos ryte pajutau skausmus*. ‘In the morning of that day, I felt pain.’).

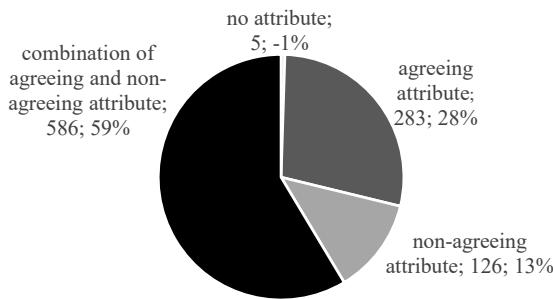


Figure 9. Distribution of attributes co-occurring with the accusative *vakarq* ‘in the evening’

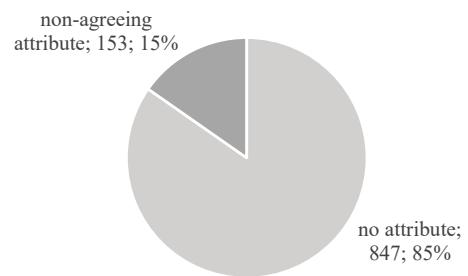


Figure 10. Distribution of attributes co-occurring with the locative *vakare* ‘in the evening’

Compared to the previous, the word *vakaras* ‘evening’ behaves to some extent similarly – without an attribute the locative is significantly preferred (85%), although systematically the accusative is also possible under such conditions, but not typical at all (<1%, cf. with the 45% for *rytas* ‘morning’). This difference is fundamental for the upcoming conclusions. Another similarity is that the combination of an agreeing and a non-agreeing attribute is also realised only in the accusative form, although the percentage representation is much greater here (59%, cf. with 8% for *rytas* ‘morning’). Anyway, the locatives of *rytas* ‘morning’ and *vakaras* ‘evening’ seem to behave very similarly, i.e., most of them occur without an attribute, but it is still possible to find them with non-agreeing attributes; moreover, there is a slightly greater number of occurrences with non-agreeing attributes for *vakaras* ‘evening’ (15%, cf. with 8% for *rytas* ‘morning’). For both the locatives of *rytas* ‘morning’ and the locatives of *vakaras* ‘evening’ no agreeing attributes or combination of agreeing and non-agreeing attributes were found.

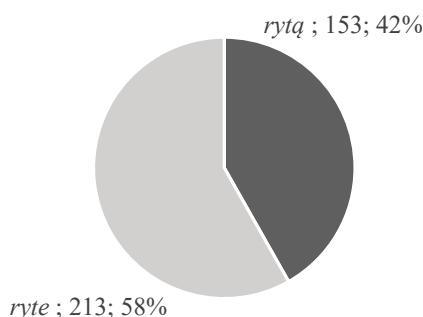


Figure 11. Distribution of adverbial collocations co-occurring with the locative and accusative of the word *rytas* ‘morning’

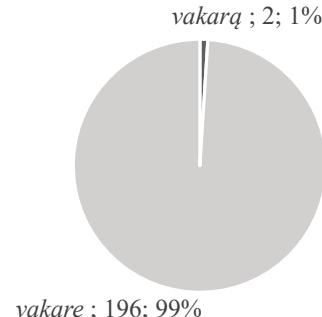


Figure 12. Distribution of adverbial collocations co-occurring with the locative and accusative of the word *vakaras* ‘evening’

In order to reflect on the matter of adverbialization, one more sorting has to be done. So, I looked at how often adverbs of time occurred with the studied expressions. For such instantiations, I will use the terms adverbial collocations.<sup>13</sup>

A large disparity of the distribution of co-occurring adverbial collocations is clearly visible – with *rytas* ‘morning’, they co-occur with both cases, although the locative is slightly more prevalent (e.g., *Temperatūra yakar ryta siekė maždaug 17,5 laipsnio*. ‘The temperature was around 17.5 degrees yesterday morning.’; *Mūsų autobusai važiuoja ir anksti rytē*. ‘Our buses leave also early in the morning.’). On the other hand, adverbial collocations used together with the word *vakaras* ‘evening’ almost always (aside from two occurrences) occur with its locative, e.g., *Emilia apie tai sužinojo vėlai vakare*. ‘Emilia found out about in late in the evening.’ The locatives *dienoje* ‘during the day’ and *naktyje* ‘at night’, of which, however, there were not many, were not found even once with an adverbial collocation. Thus, such results testify in favour of the adverbialization of the locatives *rytē* ‘in the morning’ and *vakare* ‘in the evening’, whereas the degree of adverbialization of the word *vakaras* ‘evening’ seems to be overall the strongest among the four parts of the day.

## 7 Conclusions

Lithuanian has a very rich inventory of temporal expressions realised by cases. Yet, this inventory needs to be studied more in light of current linguistic approaches and empirical data. I see a change in the way we should think about temporal expressions as being the most important basis for this research. Strictly separating adverbial time accusatives from direct object accusatives is not possible, because there are actually intermediate (non-prototypical) instantiations of temporal lexemes in accusative forms as well, as has already been noticed in Holvoet, Čižik-Prokaševa (2005). This paper contributes to this idea with several additional observations and examples from the corpus.

Accusatives of time which are syntactically involved in a sentence as prototypical verbal modifiers serve to express all three main semantic categories (location in time, duration and repetition), while those which are syntactically involved as non-prototypical verbal modifiers can express only one semantic category (duration). Of the four parts of the day under study, the accusative form is used most often with the word *diena* ‘day’, which can explain the presence of several lexical meanings of this word. Locatives of time, on the contrary, are always present only as prototypical verbal modifiers and always express the same semantics of location in time (or possibly, but already only very marginally, repetition, as in the construction *X-kartus dienoje* ‘X-times a day’).

---

<sup>13</sup> The term *collocation* can seem inadequate here, since it refers to co-occurring lexemes in general (so that above-mentioned agreeing and non-agreeing attributes are actually collocations, too), but I deliberately avoid the term *adverbial attributes* here to make it clear that these are not included in the previous statistics as “attributes”.

Further, it was confirmed that locatives and accusatives are synonymous in the meaning of location of an action/state in time, but they vary in their frequency of use. The corpus data confirmed the strongest competition using the word *vakaras* ‘evening’. However, it cannot be agreed that the locative *vakare* ‘in the evening’ is much more frequent than the accusative *vakarq* ‘in the evening’ (the corpus revealed approximately the same distribution of accusatives and locatives). The use of the word *rytas* ‘morning’ can also be seen to show competition to some extent, but the accusative *rytq* ‘in the morning’ dominates with a roughly 66% rate of usage. According to corpus data, usage of the locatives *dienoje* ‘during the day’ and *naktyje* ‘at night’ is possible but very uncommon; they are only found in old religious texts and fiction, especially lyrical texts, where the author apparently used them for stylistic or similar purposes. The locatives *dienoje* ‘during the day’ and *naktyje* ‘at night’ in the vast majority of occurrences metaphorically expressed “light and dark place” or a kind of “state” more than the time.

Within the competing pairs *vakarq* ‘in the evening’, *vakare* ‘in the evening’ and *rytq* ‘in the morning’, *ryte* ‘in the morning’, it was confirmed that the choice of the case really depends on the given word and its interaction with an attribute. According to the statistical model, the dependency relationship between our variables is stronger for *vakaras* ‘evening’ than for *rytas* ‘morning’, which is subsequently proven by the pie diagrams showing the distribution of different types of attributes. As we can see, *rytas* ‘morning’ shows a greater degree of variability and freedom in combining the attribute and the case. Moreover, the accusative *rytq* ‘in the morning’ can quite often be used even with no attribute, while the accusative *vakarq* ‘in the evening’ almost never appears without an attribute. It may be that there is no reason to systematically deny the use of *vakarq* ‘in the evening’ without an attribute, since there are several occurrences, but the tendency is clear. Another important factor determining the choice of the case is the (non-)presence of a concrete type of attribute – of the agreeing attribute, which clearly appears exclusively with the accusatives of both words.

Regarding the adverbialization of the locatives *vakare* ‘in the evening’ and *ryte* ‘in the morning’, I find this very difficult to judge, because, on the one hand, they go together with adverbs of time significantly more often than *dienoje* ‘during the day’ and *naktyje* ‘at night’; on the other hand, however, the locative *vakare* ‘in the evening’ with an adverbial collocation is used just a bit more often than with a non-agreeing attribute (196 vs. 153 occurrences) and we can find an adverbial collocation used with the accusative *rytq* ‘in the morning’ with a similar frequency (153 occurrences). Thus, in my view, the question of adverbialization cannot be decided based on this criterion only. Laigonaite’s prediction that locatives may gradually cease to be used with attributes seems to be to the point, because there were only 4% of *ryte* ‘in the morning’ and 15% of *vakare* ‘in the evening’ occurrences with attributes (non-agreeing). Coming to any further conclusions without exact diachronic data would be too bold.

However, even the corpus material does not answer the most interesting question: Why are *vakare* ‘in the evening’ and *ryte* ‘in the morning’ used so differently compared to *dienoje* ‘during the day’ and *naktyje* ‘at night’? I will present a final reflection on this matter. Perhaps the words *diena* ‘day’ and *naktis* ‘night’ themselves already encode duration (day and night, as the light and dark parts of the day lasting about 12 hours each). So, duration could be the dominant semantic feature of these words, while the location in time would be a secondary, uncharacteristic meaning. Conversely, the words *rytas* ‘morning’ and *vakaras* ‘evening’ denote specific time moments which are much shorter than day or night and imply a specific point in time. Based on that, the accusative and locative might compete in such a way that the accusative is expanding and the locative retreating. Thus, where the words themselves express durative meaning, the accusative absolutely dominates, while the locative disappears (almost no one uses *dienoje* ‘during the day’ and *naktyje* ‘at night’ anymore). Conversely, where the semantics of words imply a moment of time, the locative resists much more effectively (hence the frequent use of *vakare* ‘in the evening’ and *ryte* ‘in the morning’). In both cases, the accusatives dominate (or are at least about equally frequent), but the strength of the dominance differs, which is after all, reflected in the corpus data.

In the end, returning to where I started, i.e. to understanding case as a prototypical grammatical category which sometimes can occupy an intermediate position between the case of the prototypical verbal complement (i.e. object case) on one hand and the case of the prototypical verbal modifier (i.e. adverbial case) on the other, this might explain its above-mentioned lower degree of semantic specialisation, as well as its greater capacity to co-occur with agreeing attributes. Therefore, from this point of view, it could be stated that the locative really is more adverbialized.

## Acknowledgements

I want to thank my PhD supervisor, doc. Mag. Vaidas Šeferis, Dr. phil., for his constant support and guidance, doc. PhDr. Mojmír Dočekal, Ph.D., for his help with statistical data processing and prof. dr. hab. Axel Holvoet, for the valuable discussion and the opportunity to present this contribution at the Academia Grammaticorum Salensis Vi- gesima conference.

## Abbreviations

1 = first person; 2 = second person, 3 = third person; ACC = accusative; GEN = genitive; DAT = dative; DLKG = Dabartinės lietuvių kalbos gramatika [Grammar of the Contemporary Lithuanian Language]; DLKT = Dabartinės lietuvių kalbos tekstynas [Corpus of the Contemporary Lithuanian Language]; F = feminine; FREQ = frequentative; FUT = future; LOC = locative; M = masculine; NEG = negation; NOM = nominative; INF = infinitive; INS = instrumental; PAP = past active participle; PL = plural; PFV = perfective prefix; PPP = past passive participle; PRT = particle; PST = past; SG = singular; REFL = reflexive; TRGR = transgressive.

## Data source

DLKT *Dabartinės lietuvių kalbos tekstynas*. (Corpus of the Contemporary Lithuanian Language). 1998–2013. Available at: <http://tekstynas.vdu.lt/tekstynas/>

## References

- Ambrazas, Vytautas et al. 2005. *Dabartinės lietuvių kalbos gramatika*. [A Grammar of Modern Lithuanian]. 4<sup>th</sup> edition. Vilnius: Mokslo ir enciklopedijų leidybos institutas.
- Holvoet, Axel, Artūras Judžentis & Loreta Seménienė. 2003. *Sintaksinių ryšių tyrimai*. [Studies in syntactic relationships]. Vilnius: Lietuvių kalbos institutas.
- Holvoet, Axel, Loreta Seménienė, red. 2004. *Gramatinių kategorijų tyrimai*. [Studies in grammatical categories]. Vilnius: Lietuvių kalbos institutas.
- Holvoet, Axel, Loreta Seménienė. 2004. Linksnio teorijos pagrindai. [Fundamentals of the case theory]. *Gramatinių kategorijų tyrimai*. [Studies in grammatical categories]. Vilnius: Lietuvių kalbos institutas. 11–33.
- Holvoet, Axel, Artūras Judžentis. 2004. Tranzityvumo samprata. [Concept of transitivity]. *Gramatinių kategorijų tyrimai*. [Studies in grammatical categories]. Vilnius: Lietuvių kalbos institutas. 61–76.
- Holvoet, Axel, Vėslava Čižik. 2004. Veikslo priešpriešos tipai. [Types of aspect oppositions]. *Gramatinių kategorijų tyrimai*. [Studies in grammatical categories]. Vilnius: Lietuvių kalbos institutas. 141–162.
- Holvoet, Axel, Rolandas Mikulskas, red. 2005. *Gramatinių funkcijų tyrimai*. [Studies in grammatical relations]. Vilnius: Lietuvių kalbos institutas.
- Holvoet, Axel, Loreta Seménienė. 2005. Veiksnio ir tiesioginio papildinio sąvokos. [Notions of the subject and the direct object]. *Gramatinių funkcijų tyrimai*. [Studies in grammatical relations]. Vilnius: Lietuvių kalbos institutas. 39–64.
- Holvoet, Axel, Vėslava Čižik-Prokaševa. 2005. Papildiniai ir aplinkybės. [Objects and adverbials]. *Gramatinių funkcijų tyrimai*. [Studies in grammatical relations]. Vilnius: Lietuvių kalbos institutas. 65–92.
- Laigonaitė, Adelė. 1957. *Vietininkų reikšmė ir vartosena dabartinėje lietuvių kalboje*. [Meaning and usage of locatives in contemporary Lithuanian language]. Vilnius: Valstybinė politinės ir mokslinės literatūros leidykla.
- Makauskaitė, Indrė. 2016. Lithuanian Temporal Adverbials: Position in the System of Temporal Expressions and a Review of Semantic Research. *Lietuvių kalba* 10, 1–21. <https://doi.org/10.15388/LK.2016.22592>
- McEnery, Tony, Richard Xiao & Yukio Tono. 2006. *Corpus-based language studies: an advanced resource book*. London: Routledge.

- Stubbs, Michael. 2001. Texts, corpora, and problems of interpretation: a response to Widdowson. *Applied Linguistics* (22) 2, 149–172. <http://dx.doi.org/10.1093/applin/22.2.149>
- Šukys, Jonas. 1998. *Lietuvių kalbos linksniai ir prielinksniai: vartosena ir normos.* [Lithuanian cases and prepositions: usage and norms]. Kaunas: Šviesa.
- Ulvydas, Kazys, Elena Valiulytė, eds. 2000. *Lietuvių kalbos prieveiksmiai.* [Lithuanian adverbs]. Vilnius: Mokslo ir enciklopedijų leidybos institutas.
- Utko, Andrius. 2009. *Dažninis rašytinės lietuvių kalbos žodžių morfologiškai anotuoto tekstyno pagrindu.* [Frequency dictionary of the written Lithuanian language: based on the morphologically annotated corpus of 1 million words]. Kaunas: Vytauto Didžiojo universiteto leidykla.
- Valiulytė, Elena. 1998. *Dabartinės lietuvių kalbos sintaksiniai sinonimai: vietas, laiko ir priežasties raiška.* [Syntactic synonyms in contemporary Lithuanian language: the expression of place, time and cause]. Vilnius: Mokslo ir enciklopedijų leidybos institutas.