John Benjamins Publishing Company

On periphrastic causative constructions in Lithuanian and Latvian

Jurgis Pakerys
Vilnius University

This paper investigates the periphrastic causative constructions of Lithuanian and Latvian on the basis of corpus data. It aims at compiling a preliminary list of basic and marginal verbs used in these constructions and describes the argument marking and the clause types used to express the caused events. On the basis of corpus data, the free forms employed in these constructions are ranked according to the frequency of their causative vs. non-causative use. It is shown that the main factitive construction is based on *(pri-)versti* in Lithuanian and *likt* in Latvian, while the most frequent model for the permissive construction is based on *leisti* in Lithuanian and *ļaut* in Latvian. The causees of the factitive constructions are marked by the accusative (with the most notable exception of Latvian *likt*), while the permissive constructions strongly prefer the dative. The caused events are expressed by infinitival or *that*-clauses and some reflexive causatives select participial complements.

1. Introduction[1]

1.1 Definitions, aims of the study, data

Periphrastic causative constructions involve free causative forms combined with the verbs denoting caused events, cf. Lithuanian *verčia* and Latvian *spiež* in (1), and are distinguished from morphological causatives which employ bound morphemes, cf. Lithuanian and Latvian suffix *-in-* in (2):

---

(1) a. Lithuanian
   Karšt-is   ***verči-a***   *šird-į*   *tanki-au*   ***plak-ti***.
   heat-NOM.SG make-PRS.3 heart-ACC.SG frequently-CMP beat-INF
   'Heat makes the heart beat faster.'

b. Latvian
   Karstum-s   *sird-i*   ***spiež***   ***darbo-tie-s***   *biež-āk*.
   heat-NOM.SG heart-ACC.SG make.PRS.3 work-INF-RFL frequently-CMP
   'Heat makes the heart work faster.'   (LILA)

(2) a. Lithuanian
   Tenk-a   *dien-ą*   *nakt-į*   *deg-**in**-ti*   *duj-as*.
   get-PRS.3 day-ACC.SG night-ACC.SG burn-CAUS-INF gas-ACC.PL
   'We have to burn gas day and night.'

b. Latvian
   Dien-ām   *un*   *nakt-īm*   *jā-dedz-**in**-a*   *gāz-e*.
   day-DAT.PL and night-DAT.PL DEB-burn-CAUS-PRS.3 gas-NOM.SG
   'idem'   (LILA)

The periphrastic causative constructions in Lithuanian and Latvian are largely undescribed (see some notes in Section 2.1 and 3.1) and the main aim of this paper is (1) to compile a preliminary list of core and peripheral factitive and permissive causative constructions,[2] (2) to describe their argument marking and to specify clause types used to express the caused events, (3) to rank the constructions according to the frequency of the causative function of the free forms vs. their non-causative uses based on corpus data.

The selection of free forms marking causative relations in Lithuanian was based on the translations of English causative verbs *make* and *let* (= *versti* and *leisti* respectively) and the list was later expanded by including *spausti*, *spirti* 'make', and *duoti* 'let'. The Latvian set was compiled on the basis of a parallel corpus of Lithuanian and Latvian (LILA) by looking for correspondences of Lithuanian *versti* and *leisti*, which, as will be shown in Section 2, are the main free forms used in the causative constructions in Lithuanian. The Latvian correspondences found were *likt*, *spiest* 'make' and *ļaut*, *laist* 'let', and the list was later expanded by adding *dot* and *piedabūt*.[3] I have not aimed to compile exhaustive

lists of more or less marginally used verbs in both languages, and the sets can be certainly expanded in the future. As Lithuanian and Latvian have productive reflexivization and prefixation, dictionary, corpus, and *Google* search data were used to check if reflexive and prefixed forms of the verbs mentioned above had causative meanings. The constructions with adjectives were not considered in this study, cf. Rackevičienė (2005) where the Lithuanian construction *(pa-)daryti* 'make' + ADJ is also included.

For my analysis of Lithuanian, I have used *Dabartinės lietuvių kalbos tekstynas* (*Corpus of Modern Lithuanian*) with basic search based on 50 sources, ca. 1.7–2 million word forms, further abbreviated as DLKT50. Unfortunately, the set of the sources used in this search is not stable and I acknowledge that this is one of the shortcomings of my study. For the analysis of Latvian, the morphologically annotated *Līdzsvarots mūsdienu latviešu valodas tekstu korpuss* (*The Balanced Corpus of Modern Latvian*) containing ca. 4.5 million word forms was used, further abbreviated as LVK2013. I have only searched for finite 3rd person present and past indicative forms[4] in both corpora, assuming that they could be taken as good representatives of the use of the causative free forms, but there is no doubt that a study of all finite and nonfinite forms would give a much more detailed picture. I have reviewed and manually marked the examples for causative vs. non-causative use up to the limit of 1 000 tokens for each form. All constructions with infinitival, *that-* or participial clauses were counted as examples of causative use, no matter what additional semantic features ('force', 'oral/written permission', etc.) could possibly be at work, because strict delimitation did not seem to be possible at this stage of my research. On the other hand, for the construction to be included in this study, it had to have the ability to be used in an abstract causative sense and in a prototypical instance, this would allow such abstract subjects (causers), as *circumstances*, *situation*, etc.

The structure of the paper is as follows. In subsection 1.2, some cross-linguistic features of periphrastic causative constructions are briefly discussed; I turn to the analysis of the data in Section 2, where Lithuanian periphrastic causatives are analyzed, starting from the factitive ('make') constructions (*versti, spausti,* and *spirti*), followed by the permissive ('let') ones (*leisti* and *duoti*). Section 3 mirrors Section 2 and is devoted to the Latvian data: factitive *likt, spiest, piedabūt* and permissive *ļaut, laist,* and *dot* are discussed. Section 4 summarizes the main findings.

---

4.   There is no number distinction in the 3rd person of finite forms in Lithuanian and Latvian.

1.2   Some cross-linguistically relevant features of periphrastic causative constructions

Depending on the level of syntactic cohesion of the combined free forms, the periphrastic causative constructions can function either as mono- or bi-clausal (see, e.g., Kulikov 2001: 886–887 with further references). Monoclausal causative constructions are also referred to as syntactic or same-predicate causatives and can be exemplified by the well-known cases of German *lassen* + INF and French *faire* + INF. The free forms used in monoclausal constructions have been shown not to have their own arguments: they do not passivize, cf. Example (3), and can also be characterized by other features reflecting their monoclausal character.

German   (Kulikov 2001: 887)

(3)   a.   *Man **ließ** den Studenten **abreisen**.*
           'One made/let the student leave.'
      b.   **Der Student **wurde abreisen gelassen**.*
           'The student was made to leave.'

It has to be noted that the term "periphrastic causatives" is sometimes applied only to biclausal constructions (Dixon 2000: 35) and this convention is also followed in this study.[5] The majority of Lithuanian and Latvian constructions do not seem to show clear features of monoclausality and thus have to be regarded as biclausal (cf. Rackevičienė 2005 on Lithuanian *(pri-)versti*) and belong to the same group as English *cause to* + INF, German *zwingen zu* + INF, Russian *zastav-it'/-ljat'* + INF, etc. The biclausal nature of these Baltic constructions can be demonstrated by their ability to passivize, the independent negation markers in both clauses, etc. For example, consider passive constructions in (4a–b) vs. the active ones in (1a–b), and negation in the subordinate clauses in (4c, e) vs. negation in the main clauses in (4d, f):

(4)   a.   Lithuanian
           *Toki-omis   sąlyg-omis   šird-is   **verči-a-m-a***
           such-INS.PL.F   condition-INS.PL   heart-NOM.SG   make-PRS-PP-NOM.SG.F
           ***dirb-ti**   sunki-au*
           work-INF   hard-CMP
           'Under these conditions, the heart is made to work harder'
                   (http://www.delfi.lt/projektai/archive/article.php?id=37400763)

---

5.   In Arkadiev, Pakerys (2015: 68) we have noted that "neither of the lexical causative verbs in Lithuanian shows signs of grammaticalization and that constructions [… with *priversti*, *leisti*, and *duoti*] are clearly biclausal; therefore we are reluctant to speak about 'syntactic' or 'periphrastic' causativization in Lithuanian". In this instance the term "periphrastic" does not cover the biclausal constructions and refers to the types showing clause-union features.

b.   Latvian

   […] *sird-s*   **ir**   **spies-t-a**   **strādā-t**
   heart-NOM.SG AUX.PRS.3 make-PST.PP-NOM.SG.F work-INF
   ātr-āk
   fast-CMP
   '… the heart is made to work faster.'
                        (http://www.delfi.lv/vina/veseliba/vesela-un-laimiga/
                        vai-tava-organisma-netrukst-dzelzs.d?id=40831071)

c.   Lithuanian

   kai   *toki-omis*   *savo sąlyg-omis*   **verči-a**
   when   such-INS.PL.F RPO condition-INS.PL.F make-PRS.3
   ne-turė-ti   *vaik-ų*
   NEG-have-INF children-GEN.PL
   'when they compel you not to have children with such conditions of theirs'
                              (http://www.supermama.lt/forumas/
                              index.php?showtopic=335622&st=576)

d.   *nė*   *vien-as*   [*iš Dievo įsakymų*]   **ne-verči-a**
   not one-NOM.SG.M [of the Commandments] NEG-make-PRS.3
   turė-ti   *vaik-ų*
   have-INF child-GEN.PL
   'none [of the Commandments] compels one to have children'
     (http://www.alfa.lt/straipsnis/11895184/Baznycia.uztrenke.duris.vaiku.
                              nenorincioms.poroms=2011-07-15_19-16/)

e.   Latvian

   Konkurenc-e   **spież**   **ne-dzer-t**
   competition-NOM.SG make.PRS.3 NEG-drink-INF
   'Competition [at work] makes one refrain from drinking [alcohol]'
                              (http://www.vipi.lv/vip/latvija/idn28408/
                              alkoholisms-izplatita-paradiba-latvijas-aktieru-vide-/)

f.   *Bet vai tad krīz-e*   *t-o*   **ne-spież**
   but Q   PTC crisis-NOM.SG DEM-ACC.SG NEG-make.PRS.3
   darī-t   *paātrinā-t-ā*   *veid-ā?*
   do-INF speed.up-PST.PP-LOC.SG.M way-LOC.SG
   'Doesn't the crisis make [one] do it in a faster way?'
                              (http://www.delfi.lv/news/comment/comment/
                              edgars-kots-titaniks-kurs-peld-virsu-aisbergam.d?id=24003261)

It has to be recognized that the distinction between mono- and bi-clausal causatives is best understood as a cline (cf. Kulikov 2001: 887) and perhaps some tendencies toward monoclausality could be demonstrated by, e.g., measuring the frequency of occurrence of both predicates without the intervention of any argument between them, by exploring the alternations of causee marking (dative vs. accusative) in

some constructions, and by examining the cases of historical clitic climbing in detail (see a brief note on this aspect in Section 2.3 on Lithuanian *leistis*). These questions, for the time being, are left out of the scope of the present paper.

A further important distinction in the realm of periphrastic causatives is the semantic opposition between factitive and permissive types (Nedjalkov & Sil'nickij 1969: 28, 1973: 10). The factitive, also called the coercive or causative proper, refers to active causation of the event, cf. English *make* constructions and Examples (1a–b) above, whereas the permissive type marks passive causation of the event, which can be interpreted as the causer not preventing the event to happen, or allowing it, rather than actively participating in the causation of it (cf. Nedjalkov & Sil'nickij 1969: 28, 1973: 10; Kulikov 2001: 892). Permissive causation can be illustrated by Lithuanian *leisti* and Latvian *ļaut* in Example (5):

(5) a. Lithuanian

    skruost-ų   *od-a*   **leid-o**   **spėlio-ti,**   *ar*   *čia*
    cheek-GEN.PL skin-NOM.SG let-PST.3 guess-INF if   here
    ne-bu-s   *kok-s*   *tolim-ų*   *krašt-ų*
    NEG-be-FUT.3 some-NOM.SG.M distant-GEN.PL land-GEN.PL
    pamokslinink-as
    preacher-NOM.SG
    'the skin of [his] cheeks invited the conjecture (lit. 'allowed to guess') that he could have been some preacher from distant lands'

    b. Latvian

    vaig-u   *ād-a*   **ļāv-a**   **minē-t,**   *ka*   *t-as*
    cheek-GEN.PL skin-NOM.SG let-PST.3 guess-INF that DEM-NOM.SG.M
    varē-tu   *bū-t*   *kād-s*   *tāl-u*   *zemj-u*
    be.able-IRR.3 be-INF some-NOM.SG.M distant-GEN.PL land-GEN.PL
    sprediķotāj-s
    preacher-NOM.SG
    'idem'   (LILA)

Song (1996, 2013) suggests another important distinction and proposes AND (or sequential) and PURP(osive) types of periphrastic causatives:

> In the **sequential type**, the clause of cause and that of effect are juxtaposed strictly in that order, with or without a linking element between them […] The **purposive type** also involves two clauses, one representing an event carried out for the purpose of realizing another event denoted by the other clause (hence the term purposive). The sense of purpose or goal present in this subtype can be signaled by (i) verbal markings such as future tense, irrealis, subjunctive mood, incompletive aspect, etc., (ii) dative, allative or purposive case markers or (iii) purposive particles.   (Song 2013)

Song (2013) assigns Latvian the value of 'purposive but no sequential' type on the map,[6] but no reference is given. I believe this is due to the fact that Latvian periphrastic constructions allow irrealis marking in subordinate *lai* clauses (cf. examples in Section 3, for instance, (22c)). It has to be noted that Lithuanian also uses irrealis marking in the subordinate *kad* clauses of causative constructions, cf. Example (7c), and would belong to the same type as Latvian. We should note however that Latvian also allows periphrastic constructions with the subordinate *lai* clauses having indicative marking, cf. Example (31b),[7] and that both Lithuanian and Latvian also have constructions without irrealis marking when infinitival clauses are used. Instances like this can be interpreted to be to some extent close to the purposive type if such complementizers as Latvian *lai* or Lithuanian *kad* are treated as markers of purpose (the purposive meaning of the infinitives used in subordinate clauses seems to be relevant only for the historical development of causative constructions).

A principle of case assignment to the causee based on the noun-phrase accessibility hierarchy has been proposed by Comrie (1976), but was later criticized and argued to be rather uncommon cross-linguistically (see, for example, Dixon 2000: 54–56). As far as Lithuanian and Latvian are concerned, the periphrastic causative constructions discussed in this study assign the same case to the causee no matter what type the predicate of the caused event is (intransitive, mono- or di-transitive).[8]

---

6. http://wals.info/feature/110A.

7. Indicative in *that*-clauses of the causative constructions in Lithuanian seems to be very rare, for example:

> *aplinkyb-ės*   ***privert-ė,***   *kad* ***gaun-u***   *perei-t*   *prie*
> circumstances-NOM.PL make-PST.3 that get-PRS.1SG move-INF to
> *ši-os*   OS
> this-GEN.SG.F OS
> 'the circumstances made me change to this OS'
>
> > (http://www.php.lt/render/Forum;thread,14964)

8.   When some variation occurs, it needs to be investigated further as the data currently available to me are limited (cf. Latvian *spiest* 'make' and *laist* 'let' in Section 3 which allow dative/accusative marking of the causee).

2. Periphrastic causative constructions in Lithuanian

2.1 Previous research and productivity of Lithuanian causatives

Morphological causatives in Lithuanian have traditionally attracted much more attention than the periphrastic ones.[9] A number of aspects of periphrastic causatives are discussed in the studies of Rackevičienė (2000; 2004; 2005). In Rackevičienė (2000: 31–32) there is a brief note that Lithuanian has no analytical constructions corresponding to English *make* and Norwegian *få*. In a later study, Rackevičienė specifies that Lithuanian has no verbs that would have only general causative meaning, but notes that the verb *(pri-)versti* in some cases may lose the feature of 'force' and fulfill the function 'do so, that', as in, e.g., *(pri-)versti parausti* 'make blush', *(pri-)versti suklusti* 'make alert, listen' vs. *(pri-)versti ateiti* 'force to come'. She notes that Lithuanian *leisti* and *duoti* can also function as causatives, e.g. *leisti/duoti suprasti* 'let understand' (Rackevičienė 2004: 94). Nevertheless, Rackevičienė concludes that the causation of state and action in Lithuanian, similarly to Finnish, is mostly expressed by morphological causatives and that the periphrastic causatives are only used in certain instances, for example, when the verb cannot function as a base for morphological causative (Rackevičienė 2004: 95, 96, 103). In Rackevičienė (2005: 127–128), it is noted that all syntactic causatives in Lithuanian are biclausal in contrast to Finnish and Norwegian which have both mono- and bi-clausal constructions. This is illustrated by Lithuanian *(pri-)versti* + INF 'make' constructions with intransitive and transitive predicates (*(pa-)daryti* 'make' + ADJ constructions are also included).

As far as productivity (= new member attraction) is concerned, morphological causatives in modern Lithuanian seem to be a rather closed class and biclausal periphrastic constructions are used when there is a need to express causation of an event marked by a verb which does not have a corresponding morphological causative (cf. Rackevičienė 2004) or when a verb is a relatively new formation or borrowing (cf. Arkadiev & Pakerys 2015: 67):

(6)　a.　Standard Lithuanian
　　　　paslapt-is […] **verči-a　　fantazuo-ti**.
　　　　secret-NOM.SG　make-PRS.3　fantasize-INF
　　　　'a secret makes one fantasize.'
　　　　　　　　(http://www.tv3.lt/naujiena/782402/dizainere-v-jakucinskaite-
　　　　　　　　naujoji-mano-kolekcija-moterims-nebijancioms-demonstruoti-
　　　　　　　　savo-moteriskuma)

---

9. See, e.g., Arkadiev & Pakerys (2015: 42–44, 50–51) for a short review of the relevant literature.

b. (Lithuanian slang)

*Kas   tave   **verči-a**   **kaifuo-ti?***
what 2SG.ACC make-PRS.3 feel.pleasure-INF
'What makes you feel pleasure?'

(http://ask.fm/Tomuukas/answer/30520507193)

c. (Lithuanian slang)

[*vidžetai*] **verči-a**   *telefon-ą*   **lagin-ti**
[widgets]   make-PRS.3 phone-ACC.SG lag-INF
'Widgets make the phone lag.'

(http://mobai.lt/print.php?plugin:content.620)

Morphological causatives are not derived from these suffixal stems (**fantaz-uo-din-ti*, **kaif-uo-din-ti*, **lag-in-(d)in-ti*)[10] and this looks like evidence for avoidance of verbal suffix stacking in modern Lithuanian. However, note that formations with the causative suffix *-din-ti* which is added to an already suffixal base are attested from dialects and earlier stages of Lithuanian, cf. some examples taken from LKŽe: *keli-au-**din**-ti* 'make travel' ← *keli-au-ti* 'travel', *kiet-ė-**din**-ti* 'harden (tr.)' ← *kiet-ė-ti* 'harden (itr.)', *krikšt-y-**din**-ti* 'have baptized' ← *krikšt-y-ti* 'baptize', *aug-in-**din**-ti* 'have brought up, raised' ← *aug-in-ti* 'bring up, raise', *prakait-uo-**din**-ti* 'make sweat' ← *prakait-uo-ti* 'sweat', etc.

As to semantics of the verbs used in periphrastic causative constructions, one has to agree with Rackevičienė (2004:94) that there are no verbs in Lithuanian that have purely causative meaning. On the other hand, the corpus data show that the causative function of some verbs is quite prominent among other uses of them, consider, for example, Lithuanian *priversti* 'make' or Latvian *ļaut,* which are used as causative in 98% and 96% of instances, respectively.

---

10. In some cases, a formation in *-in-ti* with the truncation of the base could be suspected (cf. Latvian cases in Section 3.1), for example, *kaif-uo-ti* 'feel pleasure/high' → *kaif-in-ti* 'make feel pleasure/high' (suffix *-uo-* of the base might possibly be truncated), as in *cheminis garų kvapas jį „kaifina" ir ramina* 'the chemical smell of the vapor makes him feel high and calms him' (https://visuomenedotcom.wordpress.com/2015/05/17/namu-ir-namiskiu-nuodytojai-namine-toksikomanija/). This shows that the class of morphological causatives may attract sporadic new members, but one should bear in mind that instances like this can also be denominal: *kaif-in-ti* 'make, provide pleasure' ← *kaif-as* 'pleasure'. It has to be noted that some new borrowings in *-in-ti* can also be labile, cf. *telefonas lagina* 'the phone lags (itr.)' (default use) vs. *(kažkas) lagina telefoną* '(something) lags the phone (tr./impers.)' (rare use), cf. Nau 2015:113, footnote 4, on labile borrowings in Latvian.

2.2   Factitive constructions

Lithuanian factitive causative constructions are most frequently based on *versti* 'make'.[11] The causer is marked by the nominative, the causee is assigned the accusative and the caused event is indicated in an infinitival clause, cf. (7b), or, in rare instances, in a *that*-clause, cf. Example (7c):[12]

(7)   a.   *versti* 'make'   Causer NP_NOM   Causee NP_ACC   Caused event_INF-/*that*-clause

b.   *Kas*   ***verči-a***   *vasar-ą*[13]   ***žydė-ti***   *gėl-es?*
what   make-PRS.3   summer-ACC.SG   blossom-INF   flower-ACC.PL
'What makes flowers blossom in summer?'   (DLKT50)

c.   [*Vyr-as*]   ***verči-a***,   *kad   j-i*   ***leis-tų***
[man-NOM.SG]   make-PRS.3   that   3-NOM.SG.F   spend-IRR.3
laik-ą   *j-ai*   *nepatink-a-nči-ų*   *j-o*
time-ACC.SG   3-DAT.SG.F   dislike-PRS-PA-GEN.PL   3-GEN.SG.M
draug-ų   *kompanij-oje*
friend-GEN.PL   company-LOC.SG
'Her husband makes her spend time in the company of his friends, whom she dislikes.'
 (http://www.alfa.lt/straipsnis/10318307/pasitikrink-ar-vyras-tave-myli)

The causative function of *versti* seems to be quite pronounced, especially in the present tense: 89.1% (891 tokens) of PRS.3 *verčia* in the DLKT50 sample are used in the causative meaning vs. 38.24% of PST.3 *vertė* (244 tokens), that is 1 135 tokens out of 1 638 in total (69.29%).

The verb *versti* has numerous prefixal derivatives, but only *pri-versti* occurs in the causative meaning (alongside 'heap', as in *privertė krūvą šiukšlių* '(somebody)

---

11.   *versti* has a wide range of meanings and 'make' occurs alongside 'bring down', 'turn', 'translate', etc.

12.   Note that the causee is omitted in the main clause of (7c), but cf. the following example:

Š-is   *fenomen-as*   […]   *verči-a*   ***mus,***   *kad   bū-tu-me*
this-NOM.SG.M   phenomenon-NOM.SG   make-PRS.3   1PL.ACC   that   be-IRR-1PL
akyl-i
watchful-NOM.PL.M
'This phenomenon […] makes us be watchful.'
                              (http://www.cpc.vgtu.lt/index.php/cpc/article/download/cpc.2013.01/pdf)

The conditions under which the causee can be omitted are outside the scope of the present paper.

13.   Note that the accusative marks a temporal adverbial here and not the causee, which appears at the end of the sentence.

heaped a pile of rubbish', DŽ6e). The morphosyntax of *priversti* is the same as that of *versti*, cf. Examples (8a) and (8b):

(8) a. *Bet j-is   **pri-verči-a   judė-ti**   vis-ą*
         but 3-NOM.SG.M PRV-make-PRS.3 move-INF all-ACC.SG.F
         žmonij-ą!
         humanity-ACC.SG
         'But he makes all humanity move!'   (DLKT50)

     b. *Jie […]   **pri-vert-ė**   mane,   kad aš*
         3-NOM.PL.M PRV-make-PST.3 1SG.ACC that 1SG.NOM
         *j-os   **ne-išleis-čiau**   už   vyr-o*
         3-GEN.SG.F NEG-let.go-IRR.1SG for husband-GEN.SG
         'They made me not allow her to marry.'   (DLKT50)

In the case of *priversti*, the causative function is even more prominent compared to the non-prefixed *versti*. DLKT50 data show that 99.03% (409 tokens) of the sentences with PRS.3 *priverčia* and 97.66% (792 tokens) of PST.3 *privertė* have causative meaning (that is 1 201 tokens out of 1 224 in total, 98.12%). The prefixal *priversti* also has a reflexive (proper/anticausative) form *pri-si-versti*[14] which suppresses the expression of the causee:

(9) *šird-is   **pri-si-verči-a**   greiči-au **plak-ti**.*
     heart-NOM.SG PRV-RFL-make-PRS.3 fast-CMP beat-INF
     'The heart makes itself beat faster.'   (DLKT50)

In the DLKT50 sample, 94.59% (35 tokens) of PRS.3 *prisiverčia* and 98.52% (133 tokens) of PST.3 *prisivertė* are used in the causative constructions (that is 168 tokens out of 172 in total, 97.67%).

Based on the frequency of occurrence, *versti* and *priversti* seem to play the main role in Lithuanian periphrastic causative constructions and cover 20.24% and 21.41% respectively of the causative uses among the tokens of all verbs

---

14. Note that reflexive (proper) *versti-s* is not attested in the causative function either in LKŽe or in DŽ6e, but seems to be possible, cf.:

   *mači-au[,]   kaip mano brol-is   **vert-ė-si**   ei-ti   į   mokykl-ą*
   see-PST.1SG how my   brother-NOM.SG make-PST.3-RFL go-INF to school-ACC.SG
   'I saw how my brother forced himself to go to school'
                (http://greitas.eu/nuomone/as-gyvenu-be-riomerio-turiu-keletos-kitu-
                universitetu-diplomus-tai-sunkiai-vis-kamuojamas-dvasiniu-nuoskaudu-
                del-to-kad-nesimokiau-riomery-bet-gyvenu-ir-jis-isgyvens-yra-vu-ktu-ir)

The DLKT50 sample does not include any instances of the causative use of *verstis* (753 tokens in total of PRS.3 *verčiasi* and PST.3 *vertėsi* were reviewed).

analyzed in this study, while other verbs stay on the periphery (cf. full data in Table 2, Section 2.4).

As stated above, this paper does not aim at a full list of marginally used causative free forms, and only two Lithuanian factitive verbs will be discussed further, viz. *spirti* 'make' (alongside 'kick', etc.) and *spausti* 'make' (alongside 'press', etc.). The argument marking in the causative constructions based on *spirti* and *spausti* is the same as in those with *versti*:[15]

(10) a. *spirti, spausti* 'make' Causer NP$_{NOM}$ Causee NP$_{ACC}$ Caused event$_{INF-/that\text{-}clause}$

    b. *kažk-as*   *iš*   *vid-aus*   **spiri-a**   *mane*
      something-NOM.SG from inside-GEN.SG make-PRS.3 1SG.ACC
      pasako-ti *ši-ą*   *istorij-ą.*
      tell-INF   this-ACC.SG.F story-ACC.SG
      'Something from inside makes me tell this story.'   (DLKT50)

    c. *situacij-a*   *j-į*   **spaudži-a** *labai* *išmintingai*
      situation-NOM.SG 3-ACC.SG.M make-PRS.3 very cleverly
      veik-ti.
      act-INF
      'The situation makes him act very cleverly.'   (DLKT50)

Both verbs have prefixal derivatives in *pri-* (note: the same prefix as in *pri-versti* above), and the causative function of *pri-spirti* is more pronounced compared to that of the non-prefixed *spirti*, while the prefixed *pri-spausti* is used as causative only occasionally, see Table 1.

Table 1. Causative function of *(pri-)spirti* 'make' and *(pri-)spausti* 'idem', DLKT50 data

	spirti			*pri-spirti*			*spausti*			*pri-spausti*		
	caus-ative	total	%	caus-ative	total	%	caus-ative	total	%	caus-ative	total	%
PRS.3	25	130	19.23	5	25	20.00	33	562	5.87	0	163	0
PST.3	16	206	7.77	18	55	32.73	51	408	12.5	3	275	1.09
Total	41	336	12.20	23	80	28.75	84	970	8.66	3	438	0.68

---

15. *that*-clauses are rare and for the sake of brevity will not be exemplified.

2.3   Permissive constructions

The permissive causative construction in Lithuanian is most frequently realized by *leisti,* which marks the causee with the dative:[16]

(11) a.   *leisti* 'let'   Causer NP$_{\text{NOM}}$ Causee NP$_{\text{DAT}}$ Caused event$_{\text{INF-/}that\text{-clause}}$
   b.   *Lošim-as*   *leidži-a*   *Las Vegas-ui*   *tap-ti*
      gambling-NOM.SG let-PRS.3 Las Vegas-DAT   become-INF
      greiči-ausiai   *aug-a-nči-u*   *miest-u.*
      quickly-SUPER   grow-PRS-PA-INS.SG.M city-INS.SG
      'Gambling lets Las Vegas become the fastest growing city.'   (DLKT50)
   c.   *J-i*   *leid-o,*   *kad*   *taip*   *atsitik-tų.*
      3-NOM.SG.F let-PST.3 that   this.way   happen-IRR.3
      'She let it happen this way.'   (DLKT50)

The verb *leisti* has a wide range of meanings and 'let/allow' occurs alongside 'emit', 'publish', 'spend', etc. In terms of frequency of occurrence of the permissive function, *leisti* seems to be quite specialized: DLKT50 data show that PRS.3 *leidžia* and PST.3 *leido* are used as permissive in 80.3% (803 tokens) and 67% (670 tokens) of the instances respectively (that is 1 473 out of 2 000 tokens in total, 73.65%). The reflexive *leisti-s* is also attested in permissive function, and in most of the instances found in the corpus sample the caused event is expressed by a clause based on the present passive participle, cf. Example (12b):

(12) a.   *leistis* (RFL) 'let' Causer NP$_{\text{NOM}}$ (Causee NP$_{\text{DAT}}$) Caused event $_{\text{PP-/ INF-/}that\text{-clause}}$
   b.   *Net*   *niūrus-is*   *katin-as*   *leidži-a-si*
      even   gloomy-NOM.SG.M.DEF cat-NOM.SG   let-PRS.3-RFL
      paglost-o-m-as.
      pet-PRS-PP-NOM.SG.M
      'Even the grumpy cat allows itself to be petted.'   (DLKT50)

---

16. Historically the object of *leisti* 'let' was coded by the accusative, cf. genitive of negation (= accusative without the negation):

   Praded   *gaidži-ai*   *giedo-ti,* *ne-leid*   *munęs*   *miego-ti*
   begin.PRS.3 rooster-NOM.PL sing-INF   NEG-let.PRS3 1SG.GEN sleep-INF
   'The roosters start crowing and do not let me sleep'
        (from a collection of folk songs by Simonas Daukantas, 1846; cited from LKŽe)

The Latvian cognate *laist* 'let' can also occur both with the accusative and the dative, see Section 3.3. Lithuanian *leisti* also assigns accusative in other meanings (such as 'emit', 'spend'); the rise of the dative marking of the causee in this and other Lithuanian and Latvian constructions needs a separate treatment and will not be addressed in this paper.

The construction with the reflexive *leistis* and the participial clause belongs to the type of *nominativus cum participio* constructions, which have been explained either as (i) original and the reflexive morpheme is not interpreted as expressing the direct object, but rather a mark of the middle,[17] or (ii) secondary, having arisen on the basis of an *accusativus cum participio* construction when the accusative of the participle originally agreeing with the accusative of the direct object, marked by the reflexive clitic in (13a),[18] was replaced by the nominative in (13b),[19] i.e.:

(constructed)

(13) a. **Katin-as*   *leidži-a=si*   *glost-o-m-ą̨*
          cat-NOM.SG allow-PRS.3=RFL.ACC.CL pet-PRS-PP-ACC.SG.M
          (lit.) 'The cat allows itself petted'

                                    ↓

       b. *Katin-as*   *leidži-a=si*   *glost-o-m-as*
           'idem'

Note that synchronically the function of the reflexive marker in this and the following construction with the infinitival clause, Example (14), can be interpreted as signaling the coreferentiality of the subject of the main clause and the direct object (= subject in passive construction) of the subordinate clause (see, e.g., LKG 3: 165–166; Geniušienė 1987: 79), as, for example, in (12b) the cat allows the petting and it is the one petted. Moreover, when the causee NP marked by the dative is allowed in the argument structure,[20] as in (14), it is evident that the reflexive marker does not signal the coreferentiality of the subject and the causee (as one might expect from the reflexive form):

(14) [*šuo*] *ir*   *svetim-iems*   **leidži-a-si**   **glosty-ti**.
      [dog] also stranger-DAT.PL let-PRS.3-RFL pet-INF
      'The dog also allows strangers to pet it.'
      (http://banga.tv3.lt/lt/2club.club_f_reviews/161.613422.187..-=(1162369952))

Note that the construction with the infinitival clause is reminiscent of clitic climbing: the reflexive morpheme *si* (formerly a clitic) marks the argument (direct object) of the following subordinate clause, but attaches to the predicate of the

---

17. See, e.g., Potebnja (1958: 167).

18. As it was mentioned earlier (see footnote 16), the causee could be marked by the accusative at an earlier stage of the language.

19. See Bielenstein 1863: 265–266 (on Latvian), Tangl 1928: 48–50 [202–205] (on Lithuanian). See also Ambrazas (1979: 124 and 1990: 139) who considers both explanations.

20. This seems to be rare, and hence the causee NP is marked by parentheses in (12a).

main clause, and this can be considered a clause-union feature.[21] The former function (= marking the direct object) of the reflexive marker can in some instances be realized (renewed) by the full reflexive pronoun *save* (which, however, is not possible in participial clauses), cf. Example (15):

(15) *J-i*   *leid-o-si*   *tyrinė-ti*   *save* […]
     3-NOM.SG.F let-PST.3-RFL explore-INF RPO
     vyr-o   *žvilgsni-ui*
     man-GEN.SG glance-DAT.SG
     'She allowed the man's glance to explore her'   (DLKT50)

This shows that *leistis* (or, to add some caution, at least some of its uses) could have arisen when the climbing reflexive clitic of the following infinitival clause was interpreted as belonging to *leisti* which was only the phonological host of it, i.e. *leidžia*[*=si glostyti*] 'lets to pet it (literally: itself)' was reinterpreted as [*leidžia=si*] *glostyti* '[lets itself] to/for petting'. In this case the constructions with the participles can be explained as secondary and having arisen later when the participial adverbials of *leistis* were interpreted as its complements.[22]

In some instances the participial constructions are renewed (perhaps to make them more transparent) by adding the auxiliary infinitive *būti* 'be', as in (16a) and (16b):

(16) a. *Diev-as*   *leidži-a-si*   *bū-ti*   *pagimd-o-m-as*.
        god-NOM.SG let-PRS.3-RFL AUX-INF give.birth-PRS-PP-NOM.SG.M
        'God allows himself to be given birth.'   (DLKT50)
     b. [*Diev-as*]   *leidži-a-si*   *bū-ti*   *pagimdy-t-as*.
        god-NOM.SG let-PRS.3-RFL AUX-INF give.birth-PST.PP-NOM.SG.M
        'idem'   (DLKT50)

As in other types of causative constructions, subordinate *that*-clauses are quite rare, cf. Example (17):

(17) *dukt-ė*   *leidži-a-si,*   *kad kvailyb-ė*
     daughter-NOM.SG let-PRS.3-RFL that silliness-NOM.SG
     permerk-tų *j-ą*   *kiaurai*   *kaip liet-us*
     soak-IRR.3 3-NOM.SG.F throughout as   rain-NOM.SG
     'The daughter allows the silliness to soak her completely, like rain.'
                                                                  (DLKT50)

---

21. Moreover, it has to be noted that the negation marker also seems to be uncommon in the non-finite complement, but this needs to be researched in detail.

22. I owe this suggestion to Axel Holvoet and would like to thank him for discussing it with me.

Note that when a *that*-clause is used, the reflexive marker can no longer be argued to indicate the coreferentiality of the subject of the main clause and the direct object of the subordinate clause, because the direct object is indicated by the independent pronoun. Perhaps the reflexive marker only signals some degree of passivity or can be interpreted as an indirect reflexive (i.e. 'allows herself' in (17)). The difficulty of establishing the precise synchronic function of the reflexive is related to the fact that historically the reflexive marker belonged to the following subordinate clause.

In some rare instances, probably the latest stage in the development of these constructions is attested when *leistis* is used with the infinitive of 'be' and the participle is replaced by an adjective or noun (Example (18b)), cf. especially Example (18a) where the construction with the participle and the one with the adjective are used in a row:

(18) a. *jėg-a,*   *kur-i* […]   **leidži-a-si   bū-ti**
          power-NOM.SG   which-NOM.SG.F   let-PRS.3-RFL   AUX-INF
          pažįst-a-m-a,   **leidži-a-si   bū-ti   miel-a**
          be.acquainted-PRS-PP-NOM.SG.F   let-PRS.3-RFL   be-INF   lovely-NOM.SG.F
          'the power which […] allows itself to be known, allows itself to be lovely'
                                   (http://www.ekspertai.eu/inetai-puzaraitei-
                                   renginiu-organizavimas-tapo-savirealizacijos-virsune)
      b. […] *kur-ie*   **leidži-a-si   bū-ti   „pakab-omis"**
          which-NOM.PL.M   let-PRS.3-RFL   be-INF   hanger-INS.PL
          'the ones who allow themselves to be "hangers" [i.e. who allow women to hang themselves around their necks]'
                          (http://www.anglija.lt/forumas/viewtopic.php?t=567)
      c. *Dabar* [*dukr-el-ė*]   *jau*   *dažni-au*
          Now   [daughter-DIM-NOM.SG]   already   often-CMP
          leidži-a-si   bū-ti   su   močiut-ėmis
          let-PRS.3-RFL   be-INF   with   granny-INS.PL
          'Now [my daughter] already more often allows herself to be left (to stay) with her grannies'   (http://www.kaunepsichologas.lt/klausk-psichologo)

In Example (18c), *būti* is not used to form a predicative construction and has an independent meaning 'stay, spend time'. It has to be noted that some of these constructions can be already interpreted as indirect reflexives, i.e. *leisti-s = leisti* + indirect reflexive object (as in 'allow **themselves** to be hangers' in (18b)).

The permissive function of the reflexive *leistis* seems to be much less pronounced compared to its non-reflexive counterpart, and amounts to only 16.47% (that is 218 tokens out of 1 324 in total: 18.73% (112 tokens) of PRS.3 *leidžiasi* and 14.6% (106 tokens) of PST.3 *leidosi*).

The prefixal derivatives of *leisti* are not used in permissive function in modern Lithuanian.[23] DŽ6e lists the permissive sense of *už-leisti* (illustrated by *Man širdis **neužleidžia** žiūrėti į tokią žaizdą* 'My heart does not let me look at such a wound'), but one has to note that it is already outdated in standard Lithuanian. A DLKT50 query for PRS.3 *užleidžia* and PST.3 *užleido* yielded 170 and 189 tokens respectively and none of them were permissive, except for one example found in a quote dating back to 1922.

Permissive causation can also be marginally expressed by constructions with *duoti* ('let' alongside 'give' and other meanings), which have colloquial overtones. The morphosyntax is the same as that of *leisti*: the causee is marked by the dative (whether the accusative was possible in an earlier stage of the language remains to be clarified[24]):

(19) a. *duoti* 'let'   Causer NP_NOM   Causee NP_DAT   Caused event_INF-/*that*-clause
      b. *Perikl-is* […] ***duod-a   mums   tai supras-ti***
          Pericles-NOM.SG let-PRS.3 1PL.DAT it   understand-INF
          savo […] *laidotuvi-ų   kalb-oje.*
          RPO   funeral-GEN.PL speech-LOC.SG
          'Pericles lets us understand it in his funeral oration.'
      c. […] *vis-ą   laik-ą   juk **ne-duod-a,   kad** vaik-as*
          all-ACC.SG time-ACC.SG still NEG-let-PRS.3 that child-NOM.SG
          ***gulė-tų** tau   ant krūtin-ės.*
          lie-IRR.3 2.DAT.SG on   chest-GEN.SG
          '[They] do not let the child lie on your chest all the time [at the maternity hospital].'   (http://www.tevu-darzelis.lt/forumas/topic/besilaukiancios-anglijoje-1/page/281)

The frequency of the permissive function of *duoti* is very low: 0.8% (8 tokens) of PRS.3 *duoda* and 1.6% (16 tokens) of PST.3 *davė*, that is 24 tokens out of 2 000 (1.2%). I have also checked the negative permissive forms and they are somewhat more frequent: 3.61% (19 tokens) of PRS.3 *neduoda* and 4.57% (26 tokens) of PST.3 *nedavė*, that is 45 out of 1 096 tokens in total (4.11%).

---

23. LKŽe lists permissive meanings with prefixes *da-*, *per-* (marked as archaic), *pri-*, and *už-*.

24. Cf.: *J-is   **dav-ė** kit-us   apaštal-ais, kit-us*
       3-SG.NOM.M let-PST.3 other-ACC.PL.M apostle-INS.PL other-ACC.PL.M
       prarak-ais […] ***bū-ti***
       prophet-INS.PL be-INF
       'He let (?) some be apostles, some be prophets.'
          (LKŽe example taken from Jonas Bretkūnas, 1591; note that the accusative can be also the result of interference with German *lassen*-constructions)

Permissive causativity can be also expressed by the reflexive *duoti-s*, which has the same morphosyntax as *leistis* discussed above. The reflexive marker in *duotis* initially also had to be used as reflexive proper and originally could (at least in some instances) semantically and syntactically belong to the following infinitival clause (see discussion of *leistis* above). The caused event can be marked by a participial (present passive) clause, which is the default situation, cf. (20b), while infinitival and *that*-clauses are rare, cf. (20c) and (20d). Sometimes the participial clauses are accompanied by copular infinitives, as in (20e), and the possibility of marking the causee with the dative is illustrated in (20f).

(20)   a.   *duotis* (RFL) 'let' Causer NP_{NOM}   (Causee NP_{DAT}) Caused event _{PP-/INF-/*that*-clause}

 b.   *džiaugi-au-si,   kad j-is   duod-a-si*
       be.happy-PST.1-RFL   that 3-NOM.SG.M let-PRS.3-RFL
       globoj-a-m-as
       take.care-PRS-PP-NOM.SG.M
       'I was happy that he allowed himself to be taken care of.'   (DLKT50)

 c.   *Kažk-as   j-uos   vilioj-a,   ir   j-ie*
       something-NOM.SG 3-ACC.PL.M seduce-PRS.3 and 3-NOM.PL.M
       duod-a-si   su-vilio-ti.
       let-PRS.3-RFL   PRV-seduce-INF
       'Some-thing (/-body) seduces them and they allow themselves to be seduced.'   (DLKT50)

 d.   *[J-i] […]   dav-ė-si,   kad j-ai   praskės-tų   šlaun-is.*
       [3-NOM.SG.F]   let-PST.3-RFL that 3-DAT.SG.F spread-IRR.3 thigh-ACC.PL
       '[she] allowed her thighs to be spread.'   (DLKT50)

 e.   *j-i   duod-a-si   bū-ti   eksploatuoj-a-m-a.*
       3-NOM.SG.F let-PRS.3-RFL AUX-INF exploit-PRS.3-PP-NOM.SG.F
       'she allows herself to be exploited.'   (DLKT50)

 f.   *[elni-as]   duod-a-si   vis-iems   paveiksluoj-a-m-as,*
       deer-NOM.SG let-PRS.3-RFL all-DAT.PL photograph-PRS-PP-NOM.SG.M
       filmuoj-a-m-as
       film-PRS-PP-NOM.SG.M
       '[The deer] allows everyone to take pictures [of it], to film [it].'

       (http://www.prisimink.lt/lt/diskusijos.
       forum_zinutes/106124.36?sev=page)

The permissive function of the reflexive *duotis* is quite frequent compared to its non-reflexive counterpart and amounts to 49.34% (75 tokens out of 152) in total: 50.59% (43 tokens) of PRS.3 *duodasi* and 47.76% (32 tokens) of PST.3 *davėsi*. I have also analyzed the use of the negative *nesiduoti,* and it is interesting to note that it seems to be quite specialized in the negative permissive use (79.13% in total, that is 163 tokens out of a total of 206: 72.58% (90 tokens) of PRS.3 *nesiduoda* and 89.02% (73 tokens) of PST.3 *nesidavė*).

Prefixal derivatives of *duoti* are not attested in the permissive function in modern Lithuanian and only *už-duoti* 'assign to do some task' comes close to the area of causativity, but does not seem to show examples of abstract causative use.

2.4   Summing up

The main factitive periphrastic construction in Lithuanian is based on *versti* and *priversti*, while the use of other verbs, viz. (*pri-*)*spirti*, (*pri-*)*spausti*, is marginal.[25] The central role in the domain of permissive causation is played by *leisti* (with some use of reflexive *leistis*) while *duoti* is on the periphery. However, it has to be noted that among other meanings of the reflexive *duotis*, the permissive function is quite prominent with negation, cf. Table 2.

Table 2. Periphrastic causative constructions in Lithuanian, DLKT50 data

		Causative use of PRS.3 and PST.3 (tokens)	Causative use of PRS.3 and PST.3 (%)	Causative use among all tokens of analyzed verbs (%)[26]	Total (analyzed[27]) tokens
Factitive	*versti*	1 135	69.29	20.24	1 638
	versti-s	0	0	0	753
	pri-versti	1 201	98.12	21.41	1 224
	pri-si-versti	168	97.67	2.99	17
	spirti	41	12.20	0.73	336
	pri-spirti	23	28.75	0.41	80
	spausti	84	8.66	1.50	970
	pri-spausti	3	0.68	0.05	438
	Total	2 655			5 611
Permissive	*leisti*	1 473	73.65	21.20	2 000
	leisti-s	218	16.66	3.14	1 324
	duoti	1	0.29	0.01	170
	ne-duo-ti	24	1.20	0.35	2 000
	duoti-s	45	4.09	0.65	1 096
	ne-si-duoti	75	49.17	1.08	152
	Total	1 999			6 948

---

25. Reflexive factitive *verstis* is also very rare.

26. The share is counted separately for the groups of factitive and permissive verbs.

27. As stated above, the analysis was limited to 1 000 tokens for both forms, i.e. up to 1 000 tokens of PRS.3 and up to 1 000 tokens of PST.3 forms were reviewed.

As far as the morphosyntax of these constructions is concerned, the factitive ones mark the causee by the accusative (in the case of reflexives, the expression of causee is suppressed), while the permissive constructions use the dative. The permissive reflexives are peculiar in the respect that historically they could have arisen due to reassignment of the climbed reflexive clitic which originally marked the direct reflexive object of the following subordinate clause. From the synchronic point of view, the reflexive marker in some instances can be argued to signal coreferentiality of the subject of the main clause and the direct object of the subordinate clause (LKG 3:165–166 etc.).

The caused events in the factitive and the permissive constructions are marked by infinitival or (rarely) *that*-clauses, and the reflexive *leistis, duotis* also allow participial (passive) clauses which in some instances are accompanied by the auxiliary 'be'. In some constructions with *leistis*, the reflexive morpheme can be argued to mark the indirect object.

3.   Periphrastic causative constructions in Latvian

3.1   Previous research and productivity of Latvian causatives

Latvian periphrastic causative constructions have not received a separate treatment, and the free forms with causative meaning are only briefly mentioned in the works focusing on the morphological causatives. For example, Soida (2009: 197) lists *likt* 'make; order', *pavēlēt* 'order', *spiest* 'make', *aicināt* 'call' as having causativity already included in their lexical meaning. She also uses *likt* in the derivational paraphrases of the morphological causatives (Soida 2009:198–199) and this is quite systematically done in other works, see, for example, MLLVG (1 332) and LVG (289, 507, 510). The verbs *likt, (pie-)spiest* are mentioned in MLLVG (2 21) among other verbs denoting encouragement or prohibition to perform the action expressed by the infinitival clause. The verb *dot* 'give' is listed in a separate paragraph devoted to lexemes denoting 'giving', and it has to be noted that the last example, *nedosim deklamēt* 'we will not let recite', illustrates the permissive use. The verbs *ļaut* 'let' and *laist* 'idem' are not mentioned in the discussion of verbs allowing infinitival clauses (see also LVG 753 where *ļaut* is not included in the list, but used in the examples).

The productivity of morphological causatives in modern Latvian is limited (cf., e.g., MLLVG 1 332; Nau 2015), but perhaps to a slightly lesser degree than in Lithuanian. Let us begin with relatively new Latvian verbs which correspond to the Lithuanian ones used in Example (6), namely *fantazēt* 'fantasize', (slang)

kaifot 'feel pleasure/high', and (slang) *lagot* 'lag'. *Google* searches show that the periphrastic causatives are not hard to come by, and this is good evidence for the productivity (= ability to attract new members) of these constructions, cf. (21):

(21) a. *Teātr-is* […]   *man* […] **liek**   ***fantazē-t.***
          theatre-NOM.SG 1SG.DAT   make.PRS.3 fantasize-INF
          'Theatre […] makes me fantasize.'
                         (http://www.jelgavasvestnesis.lv/page/27?news_id=11922)

      b. […] *kas   tev*   **liek**   ***kaifo-t?***
             what 2SG.DAT make.PRS.3 feel.pleasure-INF
          'What makes you feel pleasure?'
                         (http://ask.fm/JolantaV/answer/109667823922)

      c. *Un   t-as*   **liek**   *lago-t   server-im.*
          and   this-NOM.SG.M make.PRS.3 lag-INF server-DAT.SG
          'And this makes the server lag.'
                         (http://z11.invisionfree.com/zoltars/index.php?showtopic=19)

On the other hand, some occasional morphological causatives based on the same verbs are also attested. The forms used for the following *Google* search were constructed bearing the principle in mind that Latvian causatives based on suffixal verbs truncate the suffixes of the derivational bases, for example: *strād-ā-t* (*-ā, -āja*) 'work' → *strād-inā-t* 'make work' (suffix *-ā-* is truncated), *danc-o-t* (*-o, -oja*) 'dance' → *danc-inā-t* 'make dance' (suffix *-o-* is truncated) (see, e.g., MLLVG 1 338–339; LVG 289; Nau 2015: 106, 108). *Google* searches were performed for the PRS.3, PST.3 and INF forms and the number of examples found is indicated in parentheses: *fantazina, -āja, -āt* (0); *kaifina* (2)*, -āja* (1)*, -āt* (2); *lagina* (4)*, -āja* (0)*, -āt* (1). Note that these verbs are occasional slang formations acceptable and understandable only to some speakers, and further study is needed to determine to what extent morphological causatives can be formed on the basis of new borrowings or native neologisms, see also Nau (2015: 106–107) who draws our attention to *kaif-inā-t* ← *kaif-o-t(ies)* and *tus-inā-t* 'make party, expose to a party' ← *tus-ē-t(ies)* 'party'. One possible limitation for these formations is that they seemingly cannot be based on verbs containing Latin and Greek roots (Nau 2015: 113). One should also not exclude the possibility of denominal derivation as well in some cases, i.e. *kaif-ināt* ← *kaif-s* 'pleasure', *lag-inā-t* ← *lag-s* 'lag', etc. (see MLLVG 1 340 on denominals in *-inā-t*), but the denominal formations seem to be much less frequent compared to deverbal and deadjectival derivatives in *-inā-t*.

3.2   Factitive constructions

The most frequent periphrastic causative construction in modern Latvian is based on *likt* 'make' (alongside 'put, set', 'order', etc.), which marks the causee with the dative and the caused event is expressed in an infinitival (default case, Example (22b)) or *that*-clause (rare, Example (22c)[28]):

(22)   a.   *likt* 'make'   Causer NP$_{NOM}$ Causee NP$_{DAT}$ Caused event $_{INF-/that\text{-}clause}$

b.   *T-as*   *arī* **liek**   **aizsērē-t** *artērij-ām.*
this-NOM.SG.M also make.PRS.3 clog-INF artery-DAT.PL
'This also makes the arteries clog.'   (LVK2013)

c.   *T-as*   **liek,**   *lai* *darb-a*   *meklētāj-i*
this-NOM.SG.M make.PRS.3 that job-GEN.SG seeker-NOM.PL
paš-i   **apzinā-to-s,**   *ka* […] *jā-izmanto*
themselves-NOM.SG.PL realize-IRR.3-RFL that   DEB-make.use.PRS.3
š-is   *laik-s*
this-NOM.SG.M time-NOM.SG
'This makes the ones looking for jobs realize that they have to make use of this period of time.'
(http://seb.lv/lv/private/research/analytic-info/finance-market/opinions/news/new/opinion026/)

The factitive function of *likt* is less prominent compared to that of Lithuanian *versti* and is attested in 36.81% of the examples in total, that is 470 tokens out of 1 277: 34.58% of PRS.3 *liek* (343 tokens) and 44.56% of PST.3 *lika* (127 tokens). It has to be noted that in some cases *likt* can be also interpreted as permissive, but I was unable to come up with a consistent analysis of all examples and have left this issue for further study (cf., for example, *likt secināt/domāt* which can be interpreted as 'make conclude/think' or 'let conclude/think'). It is worth noting in this context that the reflexive negative *nelikties* has some uses as a permissive free form and is briefly described in Section 3.3. Prefixal derivatives of *likt* do not seem to be used in the causative constructions.

Marginally, factitive causation can be also expressed by the constructions with *spiest* ('make' alongside 'press', etc.) which marks the causee with the accusative (default case) and dative (less common marking, (23c))[29]. Infinitival clauses, cf. Example (23a), are common, while *that*-clauses, Example (23d), are rather rare (none were found in the corpus sample):

---

28. None were found in the corpus sample.

29. No examples with the dative causee were found in the corpus sample. The dative marking can be explained either as influenced by the factitive construction of *likt* or by other factors.

(23) a. *spiest* 'make' Causer NP_NOM   Causee NP_ACC/DAT   Caused event _INF-/that-clause

  b. *Mod-e*   **spiež**   *ražotāj-us*   **rakstī-t**
      fashion-NOM.SG   make.PRS.3   manufacturer-ACC.PL   write-INF
      "naturāl-ā   *kosmētik-a"*   *uz jebkur-as*   *tūbiņ-as*
      natural-NOM.SG.F.DEF   cosmetics-NOM.SG   on any-GEN.SG   tube-GEN.SG
      'Fashion makes manufacturers write "natural cosmetics" on any tube.'
                                                                   (LVK2013)

  c. *Nevien-s*   *jaunieš-iem*   **ne-spiež**   **dzer-t**   *un*
      no.one-NOM.SG   youth-DAT.PL   NEG-make.PRS.3   drink-INF   and
      pīpē-t
      smoke-INF
      'No one makes youth drink and smoke.'
               (http://www.ogrenet.lv/policija/18345/?view_comments&o=a)

  d. *agr-āk*   *skol-ā*   *kārt-is*   *rāv-a*   *no*
      early-CMP   school-LOC.SG   card-ACC.PL   pull-PST.3   from
      rok-ām,   *tagad –* **spiež,**   *lai*   **spēlē**
      hand-DAT.PL   now   make.PRS.3   that   play.PRS.3
      'In earlier times at schools they pulled the playing cards out of one's hands,
      now they make you play.'   (http://www.ogrenet.lv/sports/30936)

Token frequency of *spiest* is very low compared to *likt* and the causative function is less common: PRS.3 *spiež* is represented by 54 tokens, PST.3 *spieda* has 35 tokens and in both cases ca. 26% of the forms have causative function (that is 23 tokens out of 89 in total). Reflexive *spiesties* does not have factitive function according to LLVV, and out of the prefixal derivatives, only *pie-spiest* is comparatively frequently used in the causative function (with regard to the other meanings of this verb): 54.76% of PRS.3 *piespiež* (23 tokens) and 44% of PST.3 *piespieda* (22 tokens), that is 48.91% in total (45 tokens out of 92). The reflexive *piespiestie-s* can be also used in factitive constructions, but LVK2013 has no attestations of them (note that only 3 tokens of PRS.3 and 5 tokens of PST.3 are attested), cf. *Caunem vajadzēja stipri* **piespiesties,** *lai visus tos* [*darbus*] **veiktu** 'Caune had to make (push) himself hard to accomplish all the work' (LLVV). It has to be noted that at least one example from LLVV also shows the causative function of *uz-spiest* (of note is that the causee is marked by the dative here): **Uzspiest** *bērn-am* (DAT) **apēst** *maizes šķēli* 'Make a child (DAT) eat a slice of bread' (LLVV). Causative function of *uz-spiest* is not attested in the corpus sample (7 tokens of PRS.3 and 9 tokens of PST.3).

   A very interesting semantic development of acquisitive causativity[30] which is not attested in Lithuanian is represented by Latvian (colloquial[31]) *piedabūt* 'get

---

30. By this I mean causative constructions based on verbs like 'get'. Cf. the notion of "acquisitive modals" in Van der Auwera, Kehayov & Vittrant (2009).

31. Andra Kalnača, p.c.

(make)' (cf. non-prefixed *dabūt* 'get'). The morphosyntactic marking follows the main pattern of *spiest* and the causee is marked by the accusative. When the subject is human, sometimes *piedabūt* can be interpreted as 'persuade'[32] which is probably a secondary development ('get, make' > 'get, make by persuading, talking someone into'[33]). The corpus sample has no attestations of PRS.3 and PST.3, but cf. Examples (24b) and (24d) found via *Google* search and Example (24c) with *that*-clause from LLVV:

(24) a. *piedabūt* 'make'   Causer NP_NOM   Causee NP_ACC   Caused event _INF-/that-clause_
      b. *Tikai jaunieš-u   neatlaidīg-ie   vaicājum-i*
          only   youth-GEN.PL persistent-NOM.PL.DEF query-NOM.PL
          piedabū   viņ-u   atzī-t,   ka […]
          make.PRS.3 3-ACC.SG.M admit-INF that
          'Only persistent queries of the young people make him admit that […]'
                                              (http://amigos.lv/ru/blogs?id=311577)
      c. *Krodziniek-s   viņ-u   grib   **piedabū-t,***
          pub.keeper-NOM.SG 3-ACC.SG.M want.PRS.3 get-INF
          *lai **dzer**   un **spēlē**   kārt-is* […]
          that drink.PRS.3 and play.PRS.3 card-ACC.PL
          'The pub-keeper wants to make him drink and play cards.'   (LLVV)
      d. *Kā   blondīn-es   **piedabū-t strādā-t**   lauk-os*
          how blonde-ACC.PL make-INF work-INF countryside-LOC.PL
          'How to get/make blondes work in the countryside'
             (http://www.ass.lv/joki/ka-blondines-piedabut-stradat-laukos/49865)

3.3   Permissive constructions

Permissive causativity in Latvian is most frequently expressed by the construction with *ļaut* 'let', which marks the causee with the dative:

(25) a. *ļaut* 'let'   Causer NP_NOM   Causee NP_DAT   Caused event _INF-/that-clause_
      b. *Likten-is   viņ-ām   **ļauj   iepazī-t**   dzīv-es*
          fate-NOM.SG 3-DAT.PL let.PRS.3 get.to.know-INF life-GEN.SG
          ciešan-as
          suffering-ACC.PL
          'Fate allows him to come to know the sufferings of life'   (LVK2013)

---

32. I would like to thank Andra Kalnača for drawing my attention to this aspect.

33. Perhaps also in the case of *likt*, the factitive meaning 'make' could be older with respect to 'order, tell', but this issue has to be addressed separately in a more detailed historical study.

    c.   *Viņ-š*   ***ļāv-a,***   *lai* *viņ-u*   ***noplūc***
       3-NOM.SG.M let.PST.3 that 3-ACC.SG.M pluck.off.PRS.3
       kā *ābol-u*   *no*   *zar-a*
       like apple-ACC.SG from branch-GEN.SG
       'He allowed himself to be plucked off like an apple off the branch'
                                                            (LVK2013)

The permissive meaning is very prominent in the use of *ļaut* and is attested in 96.33% of the sentences with PRS.3 *ļauj* (761 tokens) and 94.71% of PST.3 *ļāva* (215 tokens), that is 95.97% in total (976 tokens out of 1 017). The reflexive *ļauties*, similar to Lithuanian *leistis* and *duotis* discussed above, initially perhaps arose due to reassignment of the climbed clitic, cf. the discussion of Lithuanian *leistis* in Section 2.3 above. The coding of the caused event with a participial clause (common in Lithuanian constructions with *leistis* and *duotis*) seems to be very rare in Latvian and is illustrated by (26):[34]

(26) *kur-ai*   *nu*   *vis-s*   *ir*   *vienalga*   *un*
       who-DAT.SG.F now everything-NOM.SG be.PRS.3 all.the.same and
       kur-a   *ļauj-a-s*   *ved-a-m-a*
       who-NOM.SG.F let-PRS.3-RFL lead-PRS-PP-NOM.SG.F
       'who does not care now and who allows herself to be led'   (LVK2013)

Example (26) directly corresponds to the Lithuanian constructions of *leistis* and *duotis* with participial clauses, but Latvian differs in that it shows some tendency to mark the caused events by the reflexive infinitive of a transitive verb, cf. Example (27):[35]

(27) *viņ-a*   ***ļāv-ā-s***   ***pierunā-tie-s***   *ie-t*   *laulā-tie-s*
       3-NOM.SG.F let-PST.3-RFL talk.into-INF-RFL go-INF get.married-INF-RFL
       baznīc-ā
       church-LOC.SG
       'She allowed herself to be talked into having a wedding ceremony at the church.'
                                                            (LVK2013)

---

34. Note that participial clauses with present passive participles are in general rare, see MLLVG 2 23.

35. See a note by Endzelīns (1951:984) on pleonastic reflexive forms encountered in constructions with infinitival clauses (with a parallel from 16th c. Lithuanian). When the reflexive is doubled, one copy of it attaches to the matrix verb (= phonological host) and historically reflects clitic climbing while the other attaches to the infinitive (= semantic/syntactic host). The constructions based on *ļauties* with non-reflexive infinitives are also sometimes used (as noted in ME ii 533), cf. *ļauties pierunāt* 'let oneself be persuaded', where the reflexive is not doubled and can be interpreted as pure clitic climbing. Note that Endzelīns (1951:984) also provides one example of permissive *doties*, but does not comment that the reflexive marker could be interpreted as belonging to the following infinitival clause: *kumeliņš … devâ-s(i) kalpam jûgti* 'the colt allowed itself for the servant to be harnessed'.

Example (28a) demonstrates that the slot for the causee is open (i.e. the reflexive marker in *ļauties* does not synchronically mark the causee[36]) and can be taken by a dative NP, while Example (28b) illustrates the possibility of a *that*-clause. The scheme in (28c) sums up the morphosyntax of the *ļauties* construction:

(28) a.   *Vien-s*   [*no manien suņiem*]   *vis-iem*   *draug-s*
           one-NOM.SG.M   [of my dogs]   all-DAT.PL   friend-NOM.SG
           un   vis-iem   ļauj-a-s   apcel-tie-s
           and   all-DAT.PL let-PRS.3-RFL mock-INF-RFL
           'One [of my dogs] is a friend to everyone and allows everyone to mock it'
                                      (http://www.suni.lv/viewtopic.php?f=6&t=2308)
      b.   *princ-is* […],   *k-as* […]   *ļauj-a-s,*   *lai   viņ-u*
           prince-NOM.SG   who-NOM.SG.M   let-PRS.3-RFL   that 3-ACC.SG.M
           vad-a
           direct-PRS.3
           'a prince […] who […] allows himself to be directed'
                                 (http://www.diena.lv/arhivs/tris-davanas-pelnruskim-12429571)
      c.   *ļauties* 'let' (RFL) Causer NP$_{NOM}$ (Causee NP$_{DAT}$) Caused event $_{INF-/(PP-)}$[37]/*that*-clause

Finally, in (29) either new indirect reflexive/middle *ļauties* (← *ļaut* + indirect object reflexive) can be seen, or it has to be treated as a remodeling of (27) where the reflexive infinitive of the transitive verb is replaced by the non-reflexive infinitive of the intransitive verb:

(29) *Man   šķiet   skaisti, ka   sieviet-e*
      1SG.DAT seem.PRS.3 nice   that woman-NOM.SG
      ļauj-a-s   bū-t   vāj-a
      let-PRS.3-RFL be-INF weak-NOM.SG.F
      'It seems nice to me that a woman allows herself to be weak'
                                      (http://www.satori.lv/6350/komentari)

The corpus data show that the frequency of the permissive function of *ļauties* is quite low: only 9.68% of PRS.3 (3 tokens) and 9.09% of PST.3 forms (2 tokens) are permissive (that is 5 tokens out of 53 in total, 9.43%).

There is a number of prefixal derivatives of *ļaut* and it is interesting to note that *at-ļaut* is much more specialized in the expression of the permissive function than its non-prefixed counterpart: 78.46% of PRS.3 (51 tokens) and 86.84% of PST.3

---

36. As with Lithuanian constructions, we could argue that it marks the coreferentiality of the subject of the matrix clause and the direct object of the infinitival clause (note that the reflexive marker of the infinitival clause doubles this function).

37. Parentheses indicate the rarity of this construction.

forms (33 tokens), that is 84 tokens out of 103 in total (81.55%), and 68% of the reflexive PRS.3 *atļaujas* (17 tokens) and 73.68% of PST.3 *atļāvās* (14 tokens), that is 31 tokens out of 44 in total (70.45%), are permissive.

LLVV also lists a permissive meaning of *pa-ļaut*, but it seems to be very marginal and the corpus sample has no attestations of it (reflexive forms of *paļaut* are attested, but are not used in the permissive sense which is also not listed in LLVV). The verb *pie-ļaut* can be used in the permissive function, but only in rare instances, as suggested by the corpus data (4.73% of PRS.3 (8 tokens) and 3.57% of PST.3 forms (2 tokens), that is 10 tokens out of 225 in total (4.44%)); reflexive *pieļauties* is not attested in the corpus sample and LLVV does not list a permissive meaning for it. LLVV also indicates the possibility of using *uz-ļaut* in permissive constructions, but the verb is marked as obsolete and the corpus sample has no forms of PRS.3 and PST.3.

In rare instances, permissive causation can be also expressed by colloquial[38] *laist*, which slightly differs from its Lithuanian cognate *leisti* in its root vowel (*ai* vs. *ei*). The verb *laist* is used as permissive in 11.9% of PRS.3 (5 tokens) and 3.45% of PST.3 (1 token), that is 6 tokens out of 71 in total (8.45%). The causee is normally marked by the accusative (all corpus examples, cf. (30b)), but the dative is also possible, cf. (30c). The caused events usually occur in infinitival clauses, but *that*-clauses are also attested, cf. (30d):

(30) a. *laist* 'let' Causer NP_{NOM} Causee NP_{ACC/DAT} Caused event _{INF-/that-clause}

     b. […] ***laiž***   *četrgadīg-u*   *mazul-i*   ***rāp-tie-s***   *tur* *augšā*
          let.PRS.3 4.year.old-ACC.SG kid-ACC.SG climb-INF-RFL there up
          '[They] let a 4-year-old kid climb up there'   (LVK2013)

     c. *Viņ-a*   ***laiž***   *viņ-am*   ***ves-t***   *viņ-u*
          3-NOM.SG.F let.PRS.3 3-DAT.SG.M take-INF 3-ACC.SG.F
          pa   *krog-iem*
          round.to pub-DAT.PL
          'She lets him take her round to the pubs'
                    (http://jaunagaita.net/jg168/JG168_Cedrins.htm)

     d. […] *notecin-a*   *sul-u*,   ***laiž*** *lai* ***nostāv-a-s***
          pour.off-PRS.3 juice-ACC.SG let.PRS3 that stand-PRS.3-RFL
          '[they] pour off the juice and let [the potatoes] stand [for a while]'
          (http://www.kurzemes-vards.lv/lv/laikraksts/numuri/2008/01/19/?p=11)

The permissive meaning of the reflexive *laisties* is considered dialectal in LLVV, as in *Viņš **nelaižas pielūgties*** 'He does not let himself be asked, begged, i.e. he does

---

38. Andra Kalnača, p.c.

not give in' (note the reflexive infinitive used in this construction and cf. the negative forms of *likties* discussed below).

Of prefixal derivatives, only *pie-laist* is noted in LLVV as having a colloquial permissive meaning, for example: *nevarēja taču **pielaist, ka saimnieks aiziet*** '[he] could not let the host leave'. LVK2013 includes 4 forms of PRS.3 and PST.3 of *pie-laist* in total and they are used in the non-permissive sense; LLVV does not list the permissive meaning of reflexive *pielaistie-s*.

According to LLVV, the reflexive negative *nelikties* can be used in the negative permissive sense 'not to let', as in *Ziguns **nelikās** divreiz **lūgties*** 'Ziguns did not let himself be asked twice' and ***nelikties uztraukties*** 'not to let oneself be worried'. It has to be noted that this construction also has a reflexive infinitive (see discussion of *ļauties* above) and the corpus data show that it is very rare (1 case out of 93 tokens of PRS.3 and PST.3). LLVV also lists the permissive function of *likties* without the negation and marks it as archaic, for example: *Erkulītis beidzot **likās** pierunāties un ņēma savu naudu atpakaļ* 'Erkulītis finally let himself be persuaded and took his money back.'

The verb *dot*, which is a direct cognate of the Lithuanian *duoti*, also has a permissive function, but it is only marginally used.[39] LLVV treats the permissive meaning as archaic, but it still seems to be encountered in some colloquial uses:

(31) a. *Tev   mamm-a   **dod**   brauk-t*
          2SG.DAT mum-NOM.SG let.PRS.3 drive-INF
          ar   žigul-i?
          with Zhiguli-ACC.SG
          'Does your mother let you drive [her] Zhiguli [= car brand]?'
                          (http://ask.fm/Ancite137/answer/3501060145)

      b. *grib-u,   lai arī man   kaimiņ-i*
          want-PRS.1SG that also 1SG.DAT neighbor-NOM.PL
          *nakt-īs   **dod**   gulē-t*
          night-LOC.PL let.PRS.3 sleep-INF
          'I want my neighbors to let me sleep at night as well'
                          (http://www.boot.lv/forums/index.php?/
                          topic/155917-lēti-skaļruni-koju-vajadzībām/)

As far as the corpus data are concerned, I was unable to locate any examples of the permissive use of PRS.3 *dod* and PST.3 *deva* in any of 945 sentences of the sample. Reflexive *(ne)doties* can be also used in the idiomatic phrase (with the present passive participle) *(ne)doties pazīstamam* '(not) to make oneself known' (LLVV).

---

39. I would like to thank Andra Kalnača and Ilze Lokmane for valuable comments on this verb.

3.4   Summing up

The periphrastic factitive constructions in Latvian are most frequently based on *likt* and the verbs *spiest* and *piedabūt* play only a marginal role. In the permissive area, *ļaut* clearly predominates (cf. also prefixal *at-ļaut(ies)*) and in rare instances *laist* is used. The verb *dot* takes the most marginal position in the set of permissives.

As far as morphosyntax is concerned, *likt* and *ļaut* mark the causees by the dative, *piedabūt* uses the accusative, while *spiest* and *laist* show some variation between the accusative (default) and the dative (less frequent or rare). The caused events are marked by the infinitive (default) or *that*-clauses (rare). The reflexive marker in the construction with *(at)ļauties* in some instances can be argued to mark the coreferentiality of the subject of the main clause and the direct object of the infinitival clause (note that the reflexive marker can also be doubled on the infinitive). In some instances, the reflexive marker can be argued to mark the indirect reflexive object.

Table 3. Periphrastic causative constructions in Latvian, LVK2013 data

		Causative use of PRS.3 and PST.3 (tokens)	Causative use of PRS.3 and PST.3 (%)	Causative use among all tokens of analyzed verbs (%)[40]	Total tokens
Factitive	likt	470	36.81	31.71	1 277
	spiest	23	25.84	1.55	89
	pie-spiest	45	48.91	3.04	92
	pie-spiestie-s	0	0	0	8
	uz-spiest	0	0	0	16
	piedabūt	0	0	0	0
	Total	538			1 482
Permissive	ļaut	976	95.97	37.77	1 017
	ļautie-s	5	9.43	0.19	53
	at-ļaut	84	81.55	3.25	103
	atļautie-s	31	70.45	1.20	44
	pa-ļaut	0	0	0	0
	pa-ļautie-s	0	0	0	28
	pie-ļaut	10	4.44	0.39	225
	pie-ļautie-s	0	0	0	0
	laist	6	8.45	0.23	71
	pie-laist	0	0	0	5
	ne-liktie-s	1	1.08	0.04	93
	dot	0	0	0	945
	Total	1 119			2 584

40. The share is counted separately for the groups of factitive and permissive verbs.

Sources

DLKT50 – *Dabartinės lietuvių kalbos tekstynas* [Corpus of Modern Lithuanian], basic search based on 50 sources, ca. 1.7–2 million word forms, http://tekstynas.vdu.lt/.

DŽ6e – *Dabartinės lietuvių kalbos žodynas* [Dictionary of Modern Lithuanian], 6th ed. (3rd electronic edn.), Stasys Keinys (editor in chief), Laimutis Bilkis, Jonas Paulauskas and Vytautas Vitkauskas (eds). Vilnius: Lietuvių kalbos institutas, 2011, dz.lki.lt.

LILA – *Lithuanian-Latvian-Lithuanian Parallel Corpus* (the sub-corpus of direct translations from Lithuanian to Latvian was used, ca. 3.5 million word forms), http://tekstynas.vdu.lt/page.xhtml?id=parallelLILA.

LKŽe – *Lietuvių kalbos žodynas* [Dictionary of the Lithuanian Language], vols. 1–20, 1941–2002), electronic edn., Gertrūda Naktinienė (editor in chief), Jonas Paulauskas, Ritutė Petrokienė, Vytautas Vitkauskas and Jolanta Zabarskaitė (eds). Vilnius: Lietuvių kalbos institutas, 2005–2008, http://www.lkz.lt/.

LLVV – *Latviešu literārās valodas vārdnīca* [Dictionary of Standard Latvian], http://www.tezaurs.lv/llvv/.

LVK2013 – *Līdzsvarots mūsdienu latviešu valodas tekstu korpuss* [Balanced Corpus of Modern Latvian], 4.5 million word forms, http://korpuss.lv/.

ME – Karl Mühlenbach & Jan Endzelin, *Lettisch-deutsches Worterbuch, ergänzt und fortgesetzt von Janis Endzelin*. i–iv. Riga: Lettisches Bildungsministerium. Digital version available at http://www.tezaurs.lv/mev/.

References

Ambrazas, Vytautas. 1979. *Lietuvių kalbos dalyvių istorinė sintaksė* [Historical Syntax of Lithuanian Participles]. Vilnius: Mokslas.

Ambrazas, Vytautas. 1990. *Sravniteľnyj sintaksis pričastij baltijskix jazykov* [A Comparative Syntax of Participles in Baltic]. Vilnius: Mokslas.

Arkadiev, Peter & Jurgis Pakerys. 2015. Lithuanian morphological causatives: A corpus-based study. In *Voice and Argument Structure in Baltic* [Valency, Argument Realization and Grammatical Relations in Baltic, 2], Axel Holvoet and Nicole Nau (eds), 39–97. Amsterdam/Philadelphia: John Benjamins. doi:10.1075/vargreb.2.01ark

Bielenstein, August. 1863. *Die lettische Sprache nach ihren Lauten und Formen vergleichend und erklärend dargestellt. Vol. 1: Grammatik*. Berlin: Ferdinand Dümmler.

Comrie, Bernard. 1976. The syntax of causative constructions: Cross-language similarities and differences. In *Syntax and Semantics 6. The Grammar of Causative Constructions*, Masayoshi Shibatani (ed), 261–312. New York: Academic Press.

Dixon, Robert M.W. 2000. A typology of causatives: Form, syntax and meaning. In *Changing Valency. Case Studies in Transitivity*, Robert M.W. Dixon & Aleksandra Yu. Aikhenvald (eds), 30–83. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511627750.003

Endzelīns, Jānis. 1951. *Latviešu valodas gramatika* [Latvian Grammar]. Rīga: Latvijas valsts izdevniecība.

Geniušienė, Emma. 1987. *The Typology of Reflexives*. Berlin etc.: Mouton de Gruyter. doi:10.1515/9783110859119

Kulikov, Leonid. 2001. Causatives. In *Language Typology and Language Universals. An International Handbook*, Martin Haspelmath, Ekkehard König, Wulf Oesterreicher and Wolfgang Raible (eds), vol. 2, 886–898. Berlin/New York: Walter de Gruyter.

LKG 3 = Ulvydas, Kazys (ed). 1976. *Lietuvių kalbos gramatika. 3. Sintaksė* [Grammar of Lithuanian, vol. 3: Syntax] Vilnius: Mintis.

LVG = *Latviešu valodas gramatika* [Latvian Grammar], Daina Nītiņa, Juris Grigorjevs (eds). Rīga: LU Latviešu valodas institūts, 2014.

MLLVG 1, 2 = *Mūsdienu latviešu literārās valodas gramatika. I. Fonētika un morfoloģija; II. Sintakse.* [Grammar of Modern Standard Latvian. I. Phonetics and Morphology; II. Syntax], Anna Bergmane, Rūdolfs Grabis, Milda Lepika and Ēvalds Sokols (eds). Rīga: Latvijas PSR Zinātņu akadēmijas izdevniecība, 1959, 1962.

Nau, Nicole. 2015. Morphological causatives in contemporary Latvian. In *Voice and Argument Structure in Baltic* [Valency, Argument Realization and Grammatical Relations in Baltic, 2], Axel Holvoet and Nicole Nau (eds). Amsterdam/Philadelphia: John Benjamins, 99–145 doi:10.1075/vargreb.2.02nau

Nedjalkov, Vladimir P. & Georgij G. Silʹnickij. 1969. Tipologija morfologičeskogo i leksičeskogo kauzativov [Typology of the morphological and lexical causative]. In *Tipologija kauzativnyx konstrukcij. Morfologičeskij kauzativ* [Typology of Causative Constructions. The Morphological Causative], Aleksandr A. Xolodovič (ed), 20–50. Leningrad: Nauka.

Nedjalkov, Vladimir P. & Georgij G. Silʹnickij. 1973. The typology of morphological and lexical causatives. In *Trends in Soviet theoretical linguistics*, Ferenc Kiefer (ed), 1–32. Dordrecht etc.: Reidel. doi:10.1007/978-94-010-2536-2_1

Potebnja, Aleksandr A. 1958. *Iz zapisok po russkoj grammatike* [Notes on Russian Grammar], vols. 1–2. Moscow: Gosudarstvennoe učebno-pedagogičeskoe izdatelʹstvo Ministerstva prosveščenija RSFSR [first published in 1888].

Rackevičienė, Sigita. 2000. Lietuvių kalbos kauzatyvinių veiksmažodžių reikšmės ypatybės [Semantic features of Lithuanian causative verbs]. *Lituanistica 3*–4 (43–44): 26–34.

Rackevičienė, Sigita. 2004. Sintaksiniai lietuvių, norvegų ir suomių kalbų kauzatyvai [Syntactic causatives in Lithuanian, Norwegian, and Finnish]. *Baltu filoloģija* 13(1): 91–106.

Rackevičienė, Sigita. 2005. Sintaksinės kauzacinės konstrukcijos lietuvių, norvegų ir suomių kalbose [Syntactic causative constructions in Lithuanian, Norwegian, and Finnish]. *Baltu filoloģija* 14(1): 125–142.

Soida, Emilija. 2009. *Vārddarināšana* [Word Formation]. Rīga: LU Akadēmiskais apgāds.

Song, Jae Jung. 1996. *Causatives and Causation: A Universal-Typological Perspective*. London/New York: Routledge.

Song, Jae Jung. 2013. Periphrastic causative constructions. In *The World Atlas of Language Structures Online*, Matthew S. Dryer and Martin Haspelmath (eds). Leipzig: Max Planck Institute for Evolutionary Anthropology, available online at http://wals.info/chapter/110.

Tangl, Eberhard. 1928. *Der Accusativus und Nominativus cum Participio im Altlitauischen* (Einleitung und Inhaltsübersicht), Inaugural-Dissertation […], Weimar: Hermann Böhlaus Nachfolger [reprinted in *Res Balticae* 5, 1999, 151–209, pages of the reprint are indicated in square parentheses].

Van der Auwera, Johan, Kehayov, Petar & Alice Vittrant. 2009. Acquisitive modals. In *Cross-Linguistic Semantics of Tense, Aspect, and Modality* [Linguistik Aktuell/Linguistics Today, 148], Lotte Hogeweg, Helen de Hoop and Andrej Malchukov (eds), 271–302. Amsterdam/Philadelphia: John Benjamins. doi:10.1075/la.148.11auw