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Perfect and negation

Evidence from Lithuanian and sundry languages

Peter Arkadiev

Russian Academy of Sciences / Russian State University for the Humanities

I analyze the interaction of the periphrastic perfect and negation in Lithuanian, where the negative prefix can attach both to the auxiliary and to the lexical verb. I argue that the position of negation correlates with its semantic scope with respect to the perfect. The Lithuanian data are compared to those of the genetically related and geographically neighbouring languages, such as Latvian, Slavic vernaculars and Baltic Finnic, as well as to a number of similar phenomena in different languages of Eurasia that possess constructions expressing the low scope of negation with respect to the perfect or resultative.

Keywords: Lithuanian, Baltic, typology, negation, scope, morphology

1. Introduction

In this paper I offer a cross-linguistic investigation of the interaction between perfect and negation, taking as a starting point the contrast shown in example (1) from Lithuanian. Here the periphrastic perfect (1a) consisting of an inflected auxiliary and a past participle has two negative counterparts: the one in (1b) with the negative prefix attaching to the auxiliary and the one in (1c), where it attaches to the participle.

(1) Lithuanian (elicited)

- a. *Aš es-u skait-ęs ši-q*
1SG.NOM AUX.PRS-1SG read-PST.PA.NOM.SG.M this-ACC.SG.F
knyg-q.
book-ACC.SG
'I have read this book.'
- b. *Aš ne-s-u skait-ęs ši-os*
1SG.NOM NEG-AUX.PRS-1SG read-PST.PA.NOM.SG.M this-GEN.SG.F
knyg-os.
book-GEN.SG

- c. *Aš es-u ne-skait-ęs ši-os*
 1SG.NOM AUX.PRS-1SG NEG-read-PST.PA.NOM.SG.M this-GEN.SG.F
knyg-os.
 book-GEN.SG
 b=c ‘I have not read this book.’

After having discussed the existing approaches to the interaction of perfect and negation (Section 2) and presented the general features of the Lithuanian perfect (Section 3), I shall show that the difference between examples like (1b) and (1c) in Lithuanian corresponds to the mutual scope of perfect and negation (Section 4) and shall adduce a number of typological parallels to the Lithuanian pattern in areally close (Section 5) and remote (Section 6) languages. Section 7 summarizes the findings.

2. Perfect and negation: General remarks

The interaction of perfect and negation has not so far received any comprehensive treatment in the theoretical and typological literature. Moreover, in the work on tense-aspect systems negation is generally not discussed in any sufficient detail, one of the rare exceptions being Miestamo & van der Auwera (2011); for instance, in the more than thousand-page long handbook (Binnick (ed.) 2012) the issues of negation are specifically treated in only one chapter (de Swart 2012: 773–776). This is due perhaps to a usually tacit assumption (cf. Janssen 1983: 84) that with most tense-aspect categories negation can only have a single interpretation and, hence, no interesting phenomena can emerge from their interaction.

However, McCawley (1999: 179) has shown that the English perfect can have two interpretations under negation, cf. (2a) with the present perfect negated vs. (2b) with the “perfect applied to a negated verb phrase”; cf. similar observations in Zanuttini (1996: 189–190), de Swart & Molendijk (1999: 19), Katz (2003) and de Swart (2012: 773–776), see Section 6 below.

- (2) English (McCawley 1999: 179)
- a. *John hasn’t received any encouragement.*
 ‘there is no event of John receiving some encouragement’
 - b. *John has [not returned my calls] many times.*
 ‘there are many past events of John not returning my calls’

Following McCawley and other authors mentioned above, I distinguish the following two interpretations of the combination of the perfect with negation depending on their relative scope (for the sake of simplicity I assume the general meaning of the perfect to be “current relevance”):

- the “higher interpretation” (NEG > PERF): ‘it is not true that situation V has current relevance’ (2a);
- the “lower interpretation” (PERF > NEG): ‘situation not-V has current relevance’ (2b).¹

In the European languages with a distinct perfect gram (e.g. English, Spanish, Bulgarian, Greek), its combination with negation can in principle have both interpretations depending on the context, as Examples (3) from English, (4) from Bulgarian and (5) from Spanish show.

- (3) English (constructed)
- a. *I have not worked for State Security.* NEG > PERF
- b. *I have not slept for three days.* PERF > NEG
- (4) Bulgarian (ABM)
- a. *Ne săm raboti-l za Dăržavna sigurnost.*
 NEG AUX.PRS.1SG work(IPF)-PST.PRT for state security
 ‘I have not worked for State Security.’ NEG > PERF
- b. *Ne săm spa-l ot tri dn-i.* PERF > NEG
 NEG AUX.PRS.1SG sleep (IPF)-PST.PRT from 3 day-PL
 ‘I have not slept for three days.’
- (5) Peninsular Spanish (AHM)
- a. *No he visto gente más fea que en las manifestaciones.* NEG > PERF
 ‘I haven’t seen more unpleasant people than during mass demonstrations.’
- b. *No he comido en tres días.* PERF > NEG
 ‘I have not eaten for three days.’

It is notable that the lower interpretation of negation most easily arises in contexts where ‘not-V’ and especially its direct or indirect results or consequences have pragmatic salience, e.g. ‘not eat’, ‘not drink’, ‘not sleep’, ‘not paying taxes’ etc., cf. the notion of “negative facts” or “negative events”, which has been discussed in the formal-semantic literature (see e.g. Horn 1989: 51–55; Higginbotham 2000: 73–75; Fábregas & González Rodríguez 2020). Of especial relevance is the following quotation from Stockwell et al. (1973: 250–251), who were apparently the first to have noticed examples like (2b) above:

There are certain cases where a negation of an event may ... itself be an event... Semantically, the ‘event’ seems to be the breaking of a habitual or expected pattern of activity.

1. Cf. also Ramchand (2004) arguing on the basis of Bengali that negation can apply to times (higher interpretation) or to events (lower interpretation).

It may be hypothesized that such contexts of “breaking of a habitual or expected pattern of activity” cross-linguistically tend to favour the lower interpretation of negation with respect to the perfect. The data from Lithuanian, which I shall discuss below, is particularly revealing in this respect, since this language allows to overtly distinguish between the higher and lower interpretations.

3. General remarks on Lithuanian perfect

The perfect in Lithuanian consists of the auxiliary *būti* ‘be’ and an active past participle agreeing with the nominative subject in gender, number and case (I exclude from consideration constructions with passive participles), cf. Example (6). The morphosyntax and semantics of the Lithuanian perfect have been discussed by Sližienė (1964, 1967, 1969, 1995), Geniušienė & Nedjalkov (1988) and Geniušienė (1989, 1990), see also Arkadiev & Daugavet (2016) and Arkadiev & Wiemer (2020) for a recent assessment from a comparative point of view.

- (6) Lithuanian² (LKT)
Tai turbūt geriausi-as anekdot-as, kok-į es-u
 that perhaps best-NOM.SG.M joke-NOM.SG what-ACC.SG.M AUX.PRS-1SG
girdėj-ęs.
 hear-PST.PA.NOM.SG.M
 ‘This is perhaps the best joke I’ve (ever) heard.’

The auxiliary can occur in virtually any grammatical form, which sometimes yields non-compositional meanings, e.g. canceled result with the past perfect or epistemic modality with the future perfect; these won’t be considered below. In the present tense, the auxiliary is often left out, cf. (7) below.

The Lithuanian perfect has two main meanings (see Arkadiev & Daugavet 2016 for more details and the Introduction to this volume for the overview of the cross-linguistic semantics of the perfect grams and approaches to it):

- i. The subject-oriented resultative meaning attested only with telic verbs denoting change of state of the subject (‘the result of V holds at reference time’, cf. Parsons’ 1990 “target state”), cf. (7) and (8). Importantly, this meaning is largely unattested with verbs denoting the change of state of a participant other than the syntactic subject, thus the meaning of the English *I have opened the window* is usually rendered by the simple past in Lithuanian.

2. In this and the following section Lithuanian examples won’t be marked as such.

(7) *J-i at-si-sėd-us-i patogiai.*
 3-NOM.SG.F PVB-RFL-sit.down-PST.PA-NOM.SG.F comfortably
 ‘She is sitting (lit. «has sat») comfortably.’ (Servaitė 1988: 84)

(8) *T-q vasar-q Ūla-buv-o*
 DEM-ACC.SG summer-ACC.SG Ūla-NOM.SG AUX-PST.3
ap-si-vilk-us-i nauj-a suknel-e.
 PVB-RFL-dress-PST.PA-NOM.SG.F new-INS.SG.F dress-INS.SG
 ‘That summer Ūla was dressed (lit. “had put on”) in a new dress.’
 (Servaitė 1988: 84)

- ii. The experiential or existential meaning, in principle possible with all verbs but especially favoured by atelic verbs, which do not admit the resultative meaning (‘the situation V occurred at least once up to the reference time’, cf. Parsons’ 1990 “resultant state”), cf. (6) and (9).

(9) *Mažid-as buv-o žaid-ęs dešimt-is žaidim-ų.*
 M.-NOM.SG AUX-PST.3 play-PST.PA.NOM.SG.M ten-ACC.PL game-GEN.PL
Dar niekuomet ne-buv-o pa-jut-ęs toki-os
 yet never NEG-AUX-PST.3 PVB-feel-PST.PA.NOM.SG.M such-GEN.SG.F
aistr-os grum-ti-s.
 passion-GEN.SG fight-INF-RFL
 ‘M. had [by that time] played dozens of games. But he had never felt such a passion for fight.’ (LKT)

Notably, the Lithuanian perfect, unlike English or Bulgarian (cf. Iatridou et al. 2001), does not have the “universal” or “inclusive” meaning and cannot denote a durative situation lasting up to the reference time (on this type of meanings see Dahl, this volume). Thus, only (11a) with the present tense form can serve as a felicitous translation for the English (10).

(10) English
I have been working at the University for 2 years already.

(11) Lithuanian (elicited)
 a. *Universitet-e dirb-u jau dvej-us met-us.*
 university-LOC.SG work-PRS.1SG already two-ACC.PL.M year-ACC.PL
 b. *#Universitet-e es-u dirb-ęs dvej-us*
 university-LOC.SG AUX.PRS-1SG work-PST.PA.NOM.SG.M two-ACC.PL.M
met-us.
 year-ACC.PL
 ‘I have worked at the university for two years [and now I don’t work there].’

Based on these brief observations, I tentatively assume that the semantics of the Lithuanian perfect can be adequately analysed as involving a generalized notion of resultant state (cf. Depraetere 1998; Nishiyama & Koenig 2010; or Carrasco 2015). The perfect expresses a state resulting from the past event denoted by the verb phrase and holding at reference time indicated by the auxiliary. When the verb phrase is telic and expresses a change of state affecting the subject, the resultant state is naturally interpreted as the target state of that event, hence the resultative interpretation of the perfect. Otherwise the resultant state is interpreted as the state of the subject (or, with zero-place verbs, of the universe) having participated in the event denoted by the verb phrase, hence the existential reading of the perfect. Such an interpretation of the Lithuanian perfect accords well with the fact that it uniformly employs the ‘be’ auxiliary, whose role is largely similar to that of the copula. Thus, Servaitė (1988: 87) shows that the past participles of the resultative perfect can be conjoined with adjectives, cf. (12a), where the participle of *patirti* ‘experience’ is coordinated with the adjective ‘old’, and (12b), where the same participle is used in an experiential perfect construction.

- (12) a. *Tačiau j-is pakankamai sen-as ir*
 however 3-NOM.SG.M enough old-NOM.SG.M and
patyr-ęs, kad supras-tų, jog ideal-o
 experience-PST.PA.NOM.SG.M that understand-SBJ.3 that ideal-GEN.SG
ne-ras.
 NEG-find.FUT.3
 ‘However, he is old and experienced enough to understand that he won’t
 attain the ideal.’ (LKT)
- b. *Aš gerai žinau, kas yra cenzūra, nes savo kailiu*
es-u patyr-ęs j-os klasting-ų
 AUX.PRS-1SG experience-PST.PA.NOM.SG.M 3-GEN.SG.F insidious-GEN.PL
nag-ų aštrum-q.
 nail-GEN.PL sharpness-ACC.SG
 ‘I know well what censorship is, because I have felt its sharp and insidious
 nails on my own skin.’ (LKT)

Such an account of the Lithuanian Perfect is able to naturally explain its behaviour with respect to negation, to which I now turn.

4. Perfect and negation in Lithuanian

The Lithuanian perfect, as has been noted already by Sližienė (1967: 70), has two morphological positions for negation, viz. (i) the “higher” position on the auxiliary corresponding to the higher interpretation of negation as in (1a) and (13a) and (ii) the “lower” position on the participle corresponding to the lower interpretation of negation as in (1b) and (13b).

- (13) a. *Niekada ne-s-u miegoj-ęs lauke.*
 never NEG-AUX.PRS-1SG sleep-PST.PA.NOM.SG.M outdoors
 ‘I have never slept outdoors.’ (elicited) NEG > PERF
- b. *Jau dvi dien-as es-u ne-miegoj-ęs.*
 already two:ACC.F day-ACC.PL AUX.PRS-1SG NEG-sleep-PST.PA.NOM.SG.M
 ‘I have not slept for two days already.’ (elicited) PERF > NEG

The higher and the lower negations are not mutually exclusive, as show rare examples of double negation with the interpretation ‘it is not the case that there has been not-V’, as in (14).

- (14) *Niekada ne-s-u ne-padėj-ęs žmog-ui*
 never NEG-AUX.PRS-1SG NEG-help-PST.PA.NOM.SG.M person-DAT.SG
vien dėl to, kad j-is yra vien-os ar
 only because that 3-NOM.SG.M be.PRS.3 one-GEN.SG.F or
kit-os partij-os nar-ys.
 other-GEN.SG.F party-GEN.SG member-NOM.SG
 ‘It has never been the case that I didn’t help a person just because he was a member of a particular party.’ (LKT)

In addition to constructed examples in (1) and (13) it is easy to provide similar data from the corpus, cf. (15a) and (16a) with the higher negation vs. (15b) and (16b) with the lower negation.

- (15) a. *Aš niekada taip anksti ne-s-u valg-ęs*
 I.NOM never so early NEG-AUX.PRS-1SG eat-PST.PA.NOM.SG.F
vakarien-ės.
 breakfast-GEN.SG
 ‘I have never eaten dinner so early.’ (LKT)
- b. *Pa-meči-au penk-is lit-us, todėl nuo*
 PVB-throw-PST.1SG five-ACC.PL.M litas-ACC.PL therefore from
ryt-o es-u niek-o
 morning-GEN.SG AUX.PRS-1SG nothing-GEN
ne-valg-ęs.
 NEG-eat-PST.PA.NOM.SG.M
 ‘I lost five litas, so I have not eaten anything since morning.’ (LKT)

- (16) a. *Toki-o nelaiming-o aš jūs-ų dar*
 such-GEN.SG.M unhappy-GEN.SG.M 1SG.NOM 2PL-GEN yet
ne-s-u mači-us-i.
 NEG-AUX.PRS-1SG see-PST.PA-NOM.SG.F
 ‘I have not yet seen you so unhappy.’ (LKT)
- b. *Ir nors iš Europ-os sostini-ų es-u*
 and although from Europe-GEN.SG capital-GEN.PL AUX.PRS-1SG
ne-mači-us-i tik keli-ų, Vien-a palik-o
 NEG-see-PST.PA-NOM.SG.F only several-GEN.PL Vienna-NOM leave-PST.3
didel-į ir labai ger-ą įspūd-į.
 big-ACC.SG.M and very good-ACC.SG impression-ACC.SG
 ‘Although there remain just several European capitals I have not yet visited,
 Vienna has left a great and very good impression.’³

Examples like (13b) and (15b) could be argued to instantiate the “universal” meaning of the perfect denoting a situation lasting up to the reference time, which I have shown above to be not available in Lithuanian. However, such an interpretation is most likely to arise pragmatically: normally, for the resultant state of the non-occurrence of the event to hold, the event should not occur during the whole time span of this state. However, there are examples where this pragmatic implication is overridden, cf. (17) below where the lower negation is in scope of the experiential perfect referring to the subject’s past participation in a (possibly single) event of not sleeping for three days.

- (17) *O armij-oje es-u ne-miegoj-ęs tr-is*
 and army-LOC.SG AUX.PRS-1SG NEG-sleep-PST.PA.NOM.SG.M three-ACC.PL
par-as.
 day-ACC.PL
 ‘When I was in the army I once did not sleep for three days.’⁴

In many cases the opposition of the higher and the lower negations is fairly subtle and has more to do with pragmatics than semantics. Thus, while (18a) with the higher negation negates the speaker’s experience of reading bad comments, (18b) with the lower negation is used to accuse the addressee by attributing to her the property of not having read the rules (and thus of “breaking an expected pattern of behavior”), which is inferred from her having raised a “non-tolerated topic”. If the higher negation were used, the discourse effect of such a question would have been less strong. Similarly, in (16b) above the speaker, by attributing to herself the

3. <<http://tinyurl.com/og3dw3f>> (January 2017).

4. <<http://tinyurl.com/pxb28nh>> (March 2015).

property of not having seen just a couple of Europe's capitals, seems to highlight her being an experienced traveler to make a stronger rhetorical point about her impressions of Vienna.

- (18) a. *Nei vien-o blog-o komentar-o apie j-uos*
 nor one-GEN.SG.M bad-GEN.SG.M comment-GEN.SG about 3-ACC.PL.M
ne-s-u skaiči-us-i.
 NEG-AUX.PRS-1SG read-PST.PA-NOM.SG.F
 'I have not read a single bad comment about them.'⁵
- b. *Galbūt es-i ne-skaiči-us-i klub-o*
 perhaps AUX.PRS-2SG NEG-read-PST.PA-NOM.SG.F club-GEN.SG
taisykli-ų ir ne-žin-ai, jog toki-os
 rules-GEN.PL and NEG-know.PRS-2SG that such-NOM.PL.F
tem-os ne-toleruojam-os?
 topic-NOM.PL NEG-tolerated-NOM.PL.F
 'Perhaps you have not read the club's rules and don't know that such topics are not tolerated?'⁶

The lower negation becomes the only option when the perfect combines with some other prefix such as the continuative *tebe-* 'still' (see Arkadiev 2011), cf. (19), or the restrictive *te-* 'only' (see Arkadiev 2010), cf. (20).

- (19) *...humor-o jausm-o tebėra ne-prarad-us-i*
 humour-GEN.SG sense-GEN.SG CNT+AUX.PRS.3 NEG-loose-PST.PA-NOM.SG.F
iki šiolei.
 till up.to.now
 'She still has not lost her sense of humour.' (LKT)
- (20) *Iš Beethoven-o simfonij-ų te-s-u*
 from Beethoven-GEN.SG symphony-GEN.PL RSTR-AUX.PRS-1SG
ne-girdėj-us-i treči-osios.
 NEG-hear-PST.PA-NOM.SG.F third-GEN.SG.F.DEF
 'Of Beethoven's symphonies I have not heard only the Third.' (elicited)

Thus the use of the lower negation in the perfect in Lithuanian is mainly employed for the discursive highlighting of the event of not doing something and asserting the relevance of the state arisen from such a "negative event" at the reference time, in contrast to the higher negation, which serves to merely deny the existence or current relevance of an event in a neutral way; see Arkadiev (2015) for more detailed

5. <<http://tinyurl.com/mqxryty>> (March 2015).

6. <<http://tinyurl.com/oqaoenh>> (October 2014).

argumentation and a formalization of the negative event analysis (see also Fábregas & González Rodríguez to appear for an alternative analysis).

Both positions of negation are compatible with the two main readings of the perfect, i.e. resultative and experiential. From the corpus data at hand, an impression may arise that the higher negation is favoured by experiential contexts, while the resultative perfect more readily admits the lower negation. However, this is no more than a tendency, cf. example (17) with the lower negation in the experiential perfect. Likewise, it is evident that certain adverbials, such as e.g. ‘yet’ or ‘never’, favour higher negation, while others, like ‘for two days’, rather trigger the lower negation. Any further generalizations on these issues, however, require deeper investigation.

Before concluding this section, it is necessary to address the morphosyntactic status of the lower negation in the Lithuanian perfect, i.e. whether it is sentential or constituent negation and whether the whole construction is monoclausal or biclausal (cf. Bohnemeyer et al. 2007: 500–501, who consider “independent negation as a crosslinguistically applicable test for clausehood”). As to the status of negation, Lithuanian does not distinguish sentential and constituent negation formally, however, only sentential negation can trigger the genitive of negation rule. As examples (1b) and (1c) above show, both the higher and the lower negation obligatorily trigger the genitive case on the direct object, which suggests that the lower negation is sentential. The same diagnostic may be considered as indicative of monoclausality (other possible tests, such as adverbial modification, being inconclusive, see e.g. Ramchand & Svenonius 2014: 170–172), since although genitive of negation in Lithuanian can reach into embedded infinitival clauses (see Arkadiev 2016 for a detailed discussion), it is usually unavailable or at least optional with participial complements of negated matrix verbs, cf. example (21) with the phasal verb *liautis* ‘cease’.

- (21) *Kryžiuočiai ir vėliau ne-si-liov-ė*
 crusader-NOM.PL and later NEG-RFL-cease-PST.3
šmeiž-ę Vytaut-ą ir Jogail-ą.
 slander-PST.PA.NOM.PL.M Vytautas-ACC.SG and Jogaila-ACC.SG
 ‘Even later the crusaders did not stop slandering Vytautas and Jogaila.’ (LKT)

To conclude this section, I would like to reiterate that Lithuanian offers a very clear example of a language where the higher and the lower interpretations of negation with respect to the perfect are iconically differentiated in morphosyntax and productively employed by the speakers, often for conveying subtle discourse-pragmatic meanings. In the next two sections I shall present necessarily very crude data on parallel phenomena in other languages.

5. Perfect and negation in the East Baltic area

Somewhat surprisingly, Latvian, the closest relative of Lithuanian, is sharply different from the latter with respect to negated perfect. Like in English or Bulgarian above, the negation on the auxiliary freely admits the lower interpretation, cf. (22) and (23).

- (22) Latvian (LRPC)
Mēs ar tēt-i vis-u nakt-i ne-es-am
 1PL.NOM with dad-ACC.SG all-ACC.SG night-ACC.SG NEG-AUX.PRS-1PL
gulēj-uš-i.
 sleep-PST.PA-NOM.PL.M
 ‘Dad and I have not slept the whole night.’
- (23) *Viņ-a, manuprāt, nav ēd-us-i kopš*
 3-NOM.SG.F I.believe NEG.AUX.PRS.3 eat-PST.PA-NOM.SG.F from
vakarrīt-a.
 yesterday.morning-GEN.SG
 ‘I think she has not eaten since yesterday morning.’

Negation on the participle is not completely prohibited in Latvian, but is clearly a marginal option available only in a small number of admittedly lexicalized cases like (24).

- (24) *Un var-u aizmirs-t, ka esmu ne-ēd-us-i,*
 and can.PRS-1SG forget-INF that AUX.PRS.1SG NEG-eat-PST.PA-NOM.SG.F
ne-iz-gulēj-us-ie-s un
 NEG-PVB-sleep-PST.PA-NOM.SG.F-RFL and
sa-slim-us-i.
 PVB-become.sick-PST.PA-NOM.SG.F
 ‘And I can forget that I haven’t eaten, haven’t slept enough and feel sick.’⁷

It is somewhat tempting to link the difference between Lithuanian and Latvian in the behaviour of the negated perfects to the more general differences in the degree of grammaticalization of the perfect, which appears to be more advanced in Latvian, see Arkadiev & Daugavet (2016) and Arkadiev & Wiemer (2020) for more details.

Turning to the Slavic languages, we find patterns similar to the Lithuanian ones in the North-West Russian and Belarusian dialects, which have developed perfect constructions with non-inflected past active participles (cf. e.g. Trubinskij

7. <<http://tinyurl.com/mq4h7uw>> (October 2015).

1984: 172–179 for a discussion of the Baltic and dialectal Russian perfects). Note that due to the consistent non-occurrence of the auxiliary in the present tense, only constructions with the past tense auxiliary are indicative. Examples (25) and (26) show the higher and the lower negations of the past perfect in the Novgorod dialects of Russian, while Examples (27) and (28) illustrate the same phenomenon in the Belarusian dialects bordering on Lithuania.

- (25) North-West Russian dialects, Novgorod region
My v kolhoz-e ne by-l-i vo-šot-ši. NEG > PERF
 we.NOM in kolkhoz-LOC.SG NEG AUX-PST-PL PVB-go.PST(PFV)-PST.CNV
 ‘We did not enter the kolkhoz.’ (Kuz'mina & Nemčenko 1971: 183)
- (26) *Tr-i noč-i ne l'ok-ši by-l-a.* PERF > NEG
 three-ACC night-ACC.PL NEG lie.down (PFV)-PST.CNV AUX-PST-SG.F
 ‘I did not sleep for three nights (then).’⁸ (Kuz'mina & Nemčenko 1971: 188)
- (27) Belarusian dialects (Mackevič & Grinaveckienė 1993: 106)
Ja n'e by-l-a gl'adz'e-ušy. NEG > PERF
 I.NOM NEG AUX-PST-SG.F see (IPF)-PST.CNV
 ‘I had not looked.’ (Belarus, Astravecki district)
- (28) *Ja by-l-a jašče n'e-je-ušy.* PERF > NEG
 I.NOM AUX-PST-SG.F yet NEG-eat (IPF)-PST.CNV
 ‘I hadn't eaten yet.’ (Belarus, Braslaŭski district)

The dialectal Belarusian negated Perfect shows a striking structural parallelism to that of Lithuanian, cf. the following pair of examples given by Mackevič and Grinaveckienė (1993: 107):

- (29) Lith. *Jis buvo tris dienas ne-valg-ęs.*
 Bel. *Jon byu try dni n'a-je-ušy.*
 he AUX.PST three days NEG-eat-PST.PA
 ‘He had not eaten for three days.’

The same is found in the Polish dialects in Lithuania, e.g. in *polszczyzna wileńska* spoken by Poles in Vilnius and its surroundings, cf. (30) with the higher negation vs. (31) with the lower negation.

8. I consider the position of the auxiliary with respect to the main verb irrelevant, pending evidence to the contrary. What is important is that the auxiliary does not split the negation and the lexical verb. I thank an anonymous reviewer for drawing my attention to this issue.

- (30) Polish in Lithuania

Do armi-i on vutk-i n̄e by-l
 before army-GEN.SG 3(NOM.SG.M) vodka-GEN.SG NEG AUX-PST(SG.M)

koštova-fšy.

try (IPF)-PST.CNV

‘Before the army he had not tried vodka.’

(Adomavičiūtė & Čekmonas 1991: 100)

- (31)
- Ja ot sam-ego ran-a by-l-a n̄e*
-
- I.NOM from very-GEN.SG.M morning-GEN.SG AUX-PST-SG.F NEG

jat-šy, n̄e pi-fšy.

eat (IPF)-PST.CNV NEG drink (IPF)-PST.CNV

‘I have not eaten and drunk since morning.’

(example courtesy of Ewelina Mokrzecka)

With respect to Lithuanian and the Slavic dialects in the areas close to the Baltic, it is tempting to hypothesize a common development; however, there is no data indicative of parallel phenomena in Old Slavic, hence no firm conclusions can be drawn regarding the relative chronology let alone the direction of areal influence.

Turning to the Balto-Finnic languages, their periphrastic marking of clausal negation (see Miestamo et al. (eds) 2015) makes the expression of negation on the lexical verb in perfect constructions logically impossible. However, Balto-Finnic languages express lower negation by means of a special construction with the infinitive marked by the abessive (‘without’) case, cf. Tamm (2011: 861–862, 875–876; see also Fedotov et al. 2020 for a cross-linguistic discussion of the relation between caritives or abessives and negation), which constitutes a parallel to the ‘without’-perfects in Welsh and Spanish discussed below. Example (32a) shows the use of the abessive case on nouns in Southern Estonian (Võru), while (32b) illustrates the abessive form of the infinitive in the role of negated perfect.

- (32) Southern Estonian (Tamm 2011: 875)

a. *Üts’ ilma raha-ldaq intõrnetimänge lehekül’*
 one without money-ABE internet.game.GEN.PL site(NOM)

‘An internet site with games where you don’t have to pay (lit. games without money).’

b. *Sis arotõl-da-s, ... midä om jo ärq tett*
 then discuss-IPS-PRS what:PTV AUX.PRS.3SG already PTCL do.PST.PP

ja miä om tege-mä-ldäq.

and what.NOM AUX.PRS.3SG do-INF-ABE

‘Then it is discussed, what has been done already and what has not (yet) been done.’

According to Tamm (2011: 875–876), the construction with the abessive infinitive “has stronger presuppositions about the standard expectations of the corresponding affirmative situation in the given context”, which makes it in some way similar to the Lithuanian perfect with the lower negation. Such constructions are spread all over the Balto-Finnic area and are also attested in the Saami languages (Miestamo & Koponen 2015). They can hardly be regarded as areally related to the Lithuanian and dialectal Slavic perfects with the lower negation due to the complete lack of morphosyntactic parallelism between the two types of construction.

6. Some parallels in Eurasia

In this section I shall offer a necessarily cursory discussion of a number of patterns showing a formal distinction between higher and lower negation in perfect and resultative constructions in the languages of Eurasia (unfortunately, I could not find any such cases in the other linguistic macroareas). I shall start by surveying a number of cases from the European languages and then proceed eastward.

Going back to English, although in most cases, as has been mentioned in Section 2, the higher and the lower interpretations of negation with respect to the perfect are not formally distinguished, there exists a minor pattern shown in (33b) as opposed to (33a); these examples are discussed by Zanuttini (1996: 189–190), but have originally been mentioned already in Stockwell et al. (1973).

- (33) English (Zanuttini 1996: 189)
- a. *Mary hasn't always paid taxes.* (NEG > PERF > always)
 - b. *Mary has always not paid taxes.* (PERF > always > NOT)

Zanuttini observes that in the Italian version of both (33a) and (33b) negation can only precede the auxiliary as in (34a), but not the participle of the lexical verb, cf. the ungrammatical (34b).⁹

- (34) Italian (Zanuttini 1996: 190)
- a. *Maria non ha sempre pagato le tasse.*
 - b. **Maria ha sempre non pagato le tasse.*

Naturally occurring English examples with the “split” negated Perfect are given in (35). However, such examples of “split Perfect” are quite rare: according to BNC (100 million words), *have/has sometimes/often/always not* occurs 10 times, while *has/have*

9. This is confirmed by the corpus data: in AIM (1,2 billion tokens) the string *ha sempre non* is not attested at all, while the string *non ha sempre* yields 52 examples with the periphrastic past.

not occurs about 11 000 times. Notably, examples like (33) and (35) are not even mentioned in a 800-page long study of the English verb phrase by Declerck (2006).

- (35) English (AAM)
- a. [I]ndividual electors *have* sometimes ***not*** *honored* their commitment, voting for a different candidate or candidates than the ones to whom they were pledged.
 - b. [I]t is also absolutely true that the church *has* often ***not*** *served* the LGBT communities in the way it should.

The formal difference between the two interpretations of the negated perfect seems to be more pronounced in Irish English, where the so-called “medial-object perfect” (Filppula 1999: 107–116; Pietsch 2009, 2010: 131–136) of the kind *I have the boat sold* admits two positions of negation, the one on the auxiliary (36a) and another on the participle (36b). However, I am not aware of any studies focusing on the interaction of this type of perfect in Irish English with negation, so it is impossible to draw any conclusions from these data.

- (36) Irish English (Harris 1984: 312)
- a. I ***haven't*** even it *made* yet. NEG > PERF
 - b. I've a loaf ***not*** *touched*. PERF > NEG

In the Standard Swedish resultative construction based on the past (passive) participle and the *be*-auxiliary, besides the sentential negation with the particle *inte*, as in (37a), there is a way to express the lower negation by means of the nominal negative prefix *o-*, as in (37b), see Larsson (2009: 175–176). A similar dichotomy exists in German as well, cf. *Der Brief ist ungeschrieben* (Gehrke 2012: 199).

- (37) Swedish (Larsson 2009: 175–176)
- a. Artikel-*n* *är* ***inte*** *skriv-en*. NEG > PERF
 paper-DEF AUX.PRS NEG write-PST.PRT
 ‘The paper has not been written (yet).’
 - b. Artikel-*n* *är* *fortfarande* ***o-skriv-en***. PERF > NEG
 paper-DEF AUX.PRS still NEG-write-PST.PRT
 ‘The paper has still not been written.’ (lit. “is still un-written”)

In northern Swedish dialects, according to Lundquist (2014), the perfect built by the past participle and the *have*-auxiliary can be negated not only in the regular way parallel to the standard (37a) (no examples are provided, however), but also by the prefix *o-* on the participle yielding the meaning ‘not yet’ (38):¹⁰

10. I thank Östen Dahl for pointing this example out to me.

- (38) Northern Swedish (Lundquist 2014: 4)
Jag har o-äte
 I AUX.PRS NEG-eat.PST.PAST
 ‘I have not eaten (yet).’

An interesting parallel to the Balto-Finnic constructions with the abessive infinitive is attested in Welsh and Spanish. In Welsh, according to Borsley and Jones (2005: 131), the perfect can be negated either by means of a negative auxiliary together with a negative particle, as in (39a), or by means of the construction with the preposition *heb* ‘without’ (39b); the authors do not report any meaning difference between the two options, however.

- (39) Welsh (Borsley & Jones 2005: 131)
 a. *Dydy Sioned ddim wedi cyrredd.*
 NEG.AUX.PRS.3SG Sioned NEG PRF arrive
 b. *Ma’ Sioned heb gyrredd.*
 AUX.PRS.3SG Sioned without arrive
 ‘a=b Sioned has not arrived.’

A comparable construction exists in Spanish, where the passive resultative of the type shown in (40a) can be negated by means of the regular sentential negation (40b) or by means of the construction with the preposition *sin* ‘without’ and the infinitive (40c), see González Rodríguez (2015). According to González Rodríguez (2015: 44), the former construction “denies that the entity has the property denoted by the participle”, while the latter “affirms that the entity has a property” that is “a negative state”.

- (40) Spanish (AHM)
 a. *La puerta está abierta.*
 ‘The door is opened.’
 b. *La capilla no está abierta al público*
 ‘The chapel is not open to the public.’
 c. *[E]s necesario comprobar que la botella está sin abrir.*
 ‘It is necessary to check that the bottle is not open (lit. is without opening).’

A morphosyntactic differentiation between the higher and the lower interpretations of negation in perfect or resultative constructions is attested in a number of Nakh-Daghestanian languages. Thus, according to Khalilova (2009: 203–207), the position of negation in the periphrastic perfect in Khwarshi correlates with scope, cf. (41).

- (41) Khwarshi (Nakh-Daghestanian > Tsezic, Khalilova 2009: 207)
- a. *žu eⁿxu-ł usan-un y-eč-un-ay.* NEG > PERF
 3:ABS river-INTER bathe-PFV.CNV F-AUX-PST-NEG
 ‘She did not bathe in the river.’ [She never bathed in the river before]
- b. *žu eⁿxu-ł usan-bič y-eč-un.* PERF > NEG
 3:ABS river-INTER bathe-NEG.CNV F-AUX-PST
 ‘She did not bathe in the river [on some particular occasion].’

Similar “duality” of negation with respect to periphrastic resultative/perfect constructions is attested in some other Daghestanian languages as well, e.g. Agul (Timur Maisak, p.c., 2013; on the perfect in Agul see Maisak, this volume), Tsakhur (Kibrik & Testelec (eds) 1999: 84), and Godoberi (Kibrik ed. 1996: 105), however, these works do not discuss the semantic differences between constructions. For Bagwalal (Kibrik (ed.) 2001: 112, 306) it is reported that the position of negation affects the interpretation of quantifiers, which suggests a difference in scope, cf. (42a) with a negative auxiliary and the quantifier ‘all’ in the scope of negation vs. (42b) with the negative suffix on the lexical verb and the wide scope of the quantifier.

- (42) Bagwalal (Nakh-Daghestanian > Avar-Andic, Kibrik (ed.) 2001: 306)
- a. *he-m-ŋagila b-ē-r-o wečē.*
 who-H-all H.PL-come-H.PL.CNV AUX.NEG
 ‘(I see that) not everyone has come.’ (NEG > PERF)
- b. *he-m-ŋagila b-ē-r-č’ira-r-o ek’a.*
 who=H=all H.PL-come-H.PL-NEG-HPL.CNV AUX.NEG
 ‘(I see that,) everyone didn’t come.’ (PERF > NEG)

Beyond the cases already surveyed I have information only about a couple of sporadic attestations of comparable constructions in the languages of Eurasia. Thus, in Burmese, the negative prefix can attach either to the auxiliary (43a) or to the lexical verb (43b) in the perfect construction; according to Mathias Jenny (p.c., 2013), “there seems to be no difference in meaning between the two forms, the choice being rather an individual preference, with dialectal differences in some cases”.

- (43) Burmese (Sino-Tibetan > Tibeto-Burman, Mathias Jenny, p.c.)
- a. *θu ba-hmá pyò m̄a-thà phù.*
 3 what-ever say NEG-AUX.deposit NEG
 b. *ba-hmá m̄a-pyò thà phù.*
 what-ever NEG-speak AUX.deposit NEG
 ‘He didn’t say anything.’

In Sri Lankan Malay the perfect also admits two types of negation: either the “finite negation” on the auxiliary (44a) or the “non-finite negation” on the lexical verb (44b), see Slomanson (2009, this volume). According to Peter Slomanson (p.c., 2015),

the construction in (44b) “is rare, but still possible”, and the functional differences between the two constructions are unknown.

- (44) Sri Lankan Malay (Austronesian-based creole, Slomanson 2009: 258)
- a. *Farida nasi as-makan tr-aḍa.*
Farida rice ASP-eat NEG.FIN-AUX
- b. *Farida nasi jang-makan aḍa.*
Farida rice NEG.NFIN-eat AUX
'Farida hasn't eaten rice (before).'

In Japanese, the resultative-progressive form in *-te iru* also shows duality with respect to negation (see e.g. Kishimoto 2008, 2013): in (45a) the state of being a murderer is denied by attaching the negation to the auxiliary, while in (45b) the state of not forgetting is referred to by negating the lexical verb. A minimal pair with a clear semantic difference is shown in (46).

- (45) Japanese
- a. *Ore wa daremo korosh-ite i-na-i yo.* NEG > PERF
I TOP nobody kill-CNV AUX-NEG-PRS PTCL
'I have not killed anybody.' (Alpatov et al. 2008: 285)
- b. *Sore o wasure-nai-de i-te kure.* PERF > NEG
this ACC forget-NEG-CNV AUX-CNV AUX.IMP
'Do not forget it!' (Alpatov et al. 2008: 285)
- (46) a. *John ga soko ni suwat-te i-na-i.* NEG > PERF
John NOM there DAT sit.down-CNV AUX-NEG-PRS
'John is not sitting down there.' (Kishimoto 2013: 147)
- b. *John ga mada soko ni suwara-nai-de i-ru.* PERF > NEG
John NOM yet there DAT sit.down-NEG-CNV AUX-PRS
'John has not sat down there yet.' (Kishimoto 2013: 147)

Finally, it is worth mentioning a language in whose description it is explicitly stated that the lower negation is prohibited, viz. Nuosu (Sino-Tibetan, Gerner 2013: 409), where the negative prefix can only attach to the auxiliary and have wide scope, cf. (47).

- (47) Nuosu (Sino-Tibetan > Ngwi, Gerner 2013: 409)
- a. *co cyx gge mu la=ap-sat.*
person DEM CL all come=NEG-AUX
'Not all the people have come.'
- b. **co cyx gge mu ap-la=sat.*
person DEM CL all NEG-come=AUX

Interestingly, in two other Sino-Tibetan languages, Limbu (van Driem 1987: 178–181) and Dumi (van Driem 1993: 240–242), the negated perfect is formed by a negative circumfix on the lexical verb, even when the interpretation is higher rather than lower, cf. (48).

- (48) Limbu (Sino-Tibetan > Kiranti, van Driem 1987: 179)
a-sira *gɔ̃* *than* *kəɾə* *mɛn-ni-ʔe'* *wa'-ʔɛ.*
 my-pleasure then come.up but NEG.CNV-see-NEG.CNV AUX-1SG.NPST
 'I'm sure I would like it, but I've never seen one.'

To conclude this section, it is clear that the morphosyntactic duality of negation with respect to (periphrastic) perfect and resultative constructions is a phenomenon quite broadly attested in different languages of Eurasia, and that some of the languages where sentential negation can only attach to the auxiliary employ special means such as abessive adpositions or affixes in order to express the lower negation. Lithuanian, however, still figures prominently as the only major language of Europe where the duality of negation with respect to the perfect is a productive and formally iconic grammatical feature.

7. Summary and conclusions

In this article I have argued that the two types of negative perfect in Lithuanian, i.e. with the negative prefix on the auxiliary and with the negative prefix on the lexical verb, productively correlate with the two different scopes of negation with respect to the perfect, which I have called “higher” and “lower” negation. Further, as I hope to have shown in the Sections 5 and 6, the lower interpretation of negation in perfect constructions is relatively well-attested in the languages of Eurasia, including English. Moreover, from a purely logical stand, nothing prevents it from being a semantic universal, given that the lower interpretation can be triggered by certain adverbials or broader context.¹¹ However, the possibility of formally distinguishing between the higher and the lower interpretations of negation with respect to the perfect/resultative is less trivial and deserves a detailed cross-linguistic study. Lithuanian, in contrast to most European languages, constitutes a clear example of a language where this difference in semantic scope is reflected in the morphosyntax in the most iconic and compositional way. Table 1 presents the schematic summary of the data discussed above.

11. On the related but not identical issue of “not-yet” grams see Veselinova (2015).

Table 1. Expression of higher and lower negations in perfect constructions

Language	Default position of negation in the perfect	Regular negation on the lexical verb	Expression of the semantically lower negation
Lithuanian	Aux	yes	NEG+lexical verb
Latvian	Aux	marginal	NEG+Aux
North Russian	Aux	yes	NEG+lexical verb
Estonian	Aux	no	abessive construction
English	Aux	marginal	NEG+Aux, (rarely) NEG+lexical verb
Standard Swedish	Aux	no	nominal negation+lexical verb (resultative only)
Northern Swedish	Aux	no	nominal negation+lexical verb ('not yet')
Italian	Aux	no	NEG+Aux
Spanish	Aux	no	NEG+Aux, (rarely) abessive construction
Welsh	Aux	no	(?) abessive construction
Khwarshi	Aux	yes	NEG+lexical verb
Japanese	Aux	yes	NEG+lexical verb
Sri Lankan Malay	Aux	yes	NEG+lexical verb
Burmese	?	yes	?
Limbu	lexical verb	yes	?

From an areal perspective, the lack of a formal distinction between the higher and the lower interpretations of negation found in Germanic, Romance and Balkan Slavic languages seems to be an areal feature of the Standard Average European (SAE) languages, probably correlating with a higher degree of grammaticalization of the perfect and its eventual development into a perfective or simple past. Indeed, for the latter categories the lower interpretation of negation is either logically impossible or is not truth-conditionally distinct from the higher interpretation. The languages which can formally distinguish between the two interpretations of negation occur on the fringes of SAE; moreover, it seems plausible that the availability of the lower negation in some linguistic varieties of the former Grand Duchy of Lithuania is an areal phenomenon.

Last but not least, I hope that this paper has shown that the investigation of semantic and formal interactions between negation and tense-aspect categories both in individual languages and cross-linguistically can yield non-trivial results, and that Lithuanian, one of the still understudied major languages of Europe, can bring forth revealing data important for both linguistic typology and linguistic theory.

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Abbreviations

ABE	abessive	LOC	locative
ABS	absolute	M	masculine
ACC	accusative	NEG	negation
ASP	aspect	NFIN	non-finite
AUX	auxiliary	NOM	nominative
CL	classifier	NPST	non-past
CNT	continuative	PA	active participle
CNV	converb	PFV	perfective
DAT	dative	PL	plural
DEF	definite	PP	passive participle
DEM	demonstrative	PRF	perfect
F	feminine	PRS	present tense
FIN	finite	PRT	participle
FUT	future tense	PST	past tense
GEN	genitive	PTCL	particle
H	human	PTV	partitive
HPL	human plural	PVB	preverb
IMP	imperative	RFL	reflexive
INF	infinitive	RSTR	restrictive
INS	instrumental	SBJ	subjunctive
INTER	interessive case	SG	singular
IPF	imperfective	TOP	topic
IPS	impersonal	&	coordination

Sources

- AAM – Araneum Anglicum Maius, <<http://unesco.uniba.sk/aranea/>>
 ABM – Araneum Bulgaricum Maius, <<http://unesco.uniba.sk/aranea/>>
 AHM – Araneum Hispanicum Maius, <<http://unesco.uniba.sk/aranea/>>
 AIM – Araneum Italicum Maius, <<http://unesco.uniba.sk/aranea/>>
 BNC – British National Corpus, <<http://www.natcorp.ox.ac.uk/>>
 LKT – Dabartinės lietuvių kalbos tekstynas (Corpus of Modern Lithuanian),
 <www.tekstynas.vdu.lt>
 LRPC – Latvian-Russian Parallel Corpus, <<http://www.ruscorpora.ru/search-para-lv.html>>

References

- Adomavičiūtė, Irena & Čekmonas, Valerijus. 1991. Paradigma kvaziperfektnyx form na *-(f)šy* v “polščizne vilenskoj” (The paradigm of quasi-perfect forms in *-(f)šy* in “polszczyzna wileńska”). In *Studia nad polszczyzną kresową. T. 6.* (Studies in Polish Peripheral Dialects, Vol. 6), Janusz Rieger & Vjačeslav Verenič (eds), 95–105. Wrocław: Zakład Narodowy im. Ossolińskich.
- Alpatov, Vladimir M., Arkad’ev, Petr M. & Podlesskaja, Vera I. 2008. *Teoretičeskaja grammatika japonskogo jazyka, T. 1.* (Theoretical Grammar of Japanese, Vol. 1). Moscow: Natalis.
- Arkadiev, Peter. 2010. Notes on the Lithuanian restrictive. *Baltic Linguistics* 1: 9–49. <https://doi.org/10.32798/bl.434>
- Arkadiev, Peter. 2011. On the aspectual uses of the prefix *be-* in Lithuanian. *Baltic Linguistics* 2: 37–78. <https://doi.org/10.32798/bl.426>
- Arkadiev, Peter. 2015. Negative events: Evidence from Lithuanian. In *Donum semanticum: Opera linguistica et logica in honorem Barbarae Partee a discipulis amicisque Rossicis oblata*, Peter Arkadiev, Ivan Kapitonov, Yury Lander, Ekaterina Rakhilina & Sergei Tatevosov (eds), 7–20. Moscow: LRC Publishing.
- Arkadiev, Peter. 2016. Long-distance genitive of negation in Lithuanian. In *Argument Realization in Baltic* [Valency, Argument Realization and Grammatical Relations in Baltic 3], Axel Holvoet & Nicole Nau (eds), 37–81. Amsterdam: John Benjamins. <https://doi.org/10.1075/vargreb.3.01ark>
- Arkadiev, Peter & Daugavet, Anna. 2016. The perfect in Lithuanian and Latvian: A contrastive and comparative study. Talk at *Chronos* 12, Caen, 15–17 June.
- Arkadiev, Peter & Wiemer, Björn. 2020. Perfects in Baltic and Slavic. In *Perfects in Indo-European languages and Beyond* [Current Issues in Linguistic Theory 352], Robert Crellin & Thomas Jügel (eds), 123–214. Amsterdam: John Benjamins. <https://doi.org/10.1075/cilt.352.05ark>
- Binnick, Robert I. (ed.). 2012. *The Oxford Handbook of Tense and Aspect*. Oxford: OUP. <https://doi.org/10.1093/oxfordhb/9780195381979.001.0001>
- Bohnenmeyer, Jürgen, Enfield, Nicholas J., Essegbey, James, Ibarretxe-Antuñano, Iraide, Kita, Sotaro, Lüpke, Friederike & Ameka, Felix K. 2007. Principles of event segmentation in language: The case of motion events. *Language* 83(3): 495–532. <https://doi.org/10.1353/lan.2007.0116>
- Borsley, Robert D. & Jones, Bob M. 2005. *Welsh Negation and Grammatical Theory*. Cardiff: University of Wells Press.
- Carrasco, Ángeles. 2015. Perfect states. *Borealis* 4(1): 1–30. <https://doi.org/10.7557/1.4.1.3354>

- Declerck, Renaat. 2006. *The Grammar of the English Verb Phrase, Vol. 1: The Grammar of the English Tense System. A Comprehensive Analysis*. Berlin: Mouton de Gruyter.
- Depraetere, Ilse. 1998. On the resultative character of present perfect sentences. *Journal of Pragmatics* 29(5): 597–613. [https://doi.org/10.1016/S0378-2166\(97\)00084-2](https://doi.org/10.1016/S0378-2166(97)00084-2)
- van Driem, George. 1987. *A Grammar of Limbu*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110846812>
- van Driem, George. 1993. *A Grammar of Dumi*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110880915>
- Fábregas, Antonio & González Rodríguez, Raquel. 2020. On inhibited eventualities. *Natural Language and Linguistic Theory* 38: 729–773. <https://doi.org/10.1007/s11049-019-09461-y>
- Fábregas, Antonio & González Rodríguez, Raquel. To appear. Negation with participles and inhibited events. To appear in *Linguistic Analysis*.
- Fedotov, Maksim, Sofia Oskolskaya & Natalia Zaika. 2020. Caritive as a negative marker. Presentation at the 53rd Annual Meeting of the Societas Linguistica Europaea (online, 26 August – 1 September).
- Filppula, Markku. 1999. *The Grammar of Irish English. Language in Hibernian Style*. London: Routledge.
- Gehrke, Berit. 2012. Passive states. In *Telicity, Change, and State. A Cross-Categorial View of Event Structure*, Violeta Demonte & Louise McNally (eds), 185–211. Oxford: OUP. <https://doi.org/10.1093/acprof:oso/9780199693498.003.0008>
- Geniušienė, Emma. 1989. O vzaimodejstvii perfekta i vida v litovskom jazyke (On the interactions of perfect and aspect in Lithuanian). *Baltistica* 3(2): 285–291.
- Geniušienė, Emma. 1990. Perfekt i vid v litovskom jazyke (Perfect and aspect in Lithuanian). In *Tipologija i grammatika* (Typology and Grammar), Viktor S. Xrakovskij (ed.), 135–140. Leningrad: Nauka.
- Geniušienė, Emma & Nedjalkov, Vladimir. 1988. Resultative, passive, and perfect in Lithuanian. In *Typology of Resultative Constructions* [Typological Studies in Language 12], Vladimir Nedjalkov (ed.), 369–386. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.12.27gen>
- González Rodríguez, Raquel. 2015. Negation of resultative and progressive periphrases. *Borealis* 4(1): 31–56. <https://doi.org/10.7557/1.4.1.3317>
- Harris, John. 1984. Syntactic variation and dialect divergence. *Journal of Linguistics* 20(2): 303–327. <https://doi.org/10.1017/S0022226700013918>
- Higginbotham, James. 2000. On events in linguistic semantics. In *Speaking of Events*, James Higginbotham, Fabio Pianesi & Achille C. Varzi (eds), 49–80. Oxford: OUP.
- Horn, Lawrence. 1989. *A Natural History of Negation*. Stanford CA: CSLI.
- Iatridou, Sabine, Anagnostopoulou, Elena & Izvorski, Roumyana. 2001. Observations about the form and meaning of the perfect. In *Ken Hale: A Life in Language*, Michael Kenstowicz (ed.), 189–238. Cambridge MA: The MIT Press.
- Janssen, Theo M. V. 1983. Scope ambiguities of tense, aspect and negation. In *Linguistic Categories: Auxiliaries and Related Puzzles*, Frank Heny & Barry Richards (eds), 55–99. Dordrecht: Reidel. https://doi.org/10.1007/978-94-009-6992-6_2
- Katz, Graham. 2003. On the stativity of the English perfect. In *Perfect Explorations* [Interface Explorations 2], Artemis Alexiadou, Monika Rathert & Arnim von Stechow (eds), 205–234. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110902358.205>
- Khalilova, Zaira. 2009. *A Grammar of Khwarshi*. Utrecht: LOT Publications.
- Kibrik, Alexander E. (ed.). 1996. *Godoberi*. Munich: Lincom.

- Kibrik, Aleksandr E. (ed.). 2001. *Bagvalinskij jazyk. Grammatika. Teksty. Slovar'* (Bagwalal. Grammar, texts, dictionary). Moscow: Nasledie.
- Kibrik, Aleksandr E. & Testelec, Jakov G. (eds). 1999. *Ėlementy tsakurskogo jazyka v tipologiĥeskom osveŝĥenii* (Elements of Tsakhur in a typological perspective). Moscow: Nasledie.
- Kishimoto, Hideki. 2008. On the variability of negative scope in Japanese. *Journal of Linguistics* 44(2): 379–435. <https://doi.org/10.1017/S0022226708005161>
- Kishimoto, Hideki. 2013. Verbal complex formation and negation in Japanese. *Lingua* 135: 132–154. <https://doi.org/10.1016/j.lingua.2012.11.007>
- Kuz'mina, Irina B. & Nemĥenko, Elena V. 1971. *Sintaksis priĥastnyx form v russkix govorax* (The syntax of participles in Russian dialects). Moscow: Nauka.
- Larsson, Ida. 2009. *Participles in Time. The Development of the Perfect Tenses in Swedish*. (Nordistica Gothoburgensia 29) Göteborg: Göteborgs Universitet.
- Lundquist, Björn. 2014. Prefixed negation. *Nordic Atlas of Language Structures Journal* 1: 149–153.
- Mackevič, Juzefa F. & Grinaveckienė, Elena. 1993. Dzejeprysloūi na -(ū)ŝy ũ belaruskix narodnyx gavorkax (Gerunds in -(ū)ŝy in Belorussian dialects). *Lietuvių kalbotyros klausimai* 30: 105–108.
- McCawley, James D. 1999. Some interactions between tense and negation in English. In *The Clause in English: In Honour of Rodney D. Huddleston* [Studies in Language Companion Series 45], Peter C. Collins & David A. Lee (eds), 177–185. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.45.14mcc>
- Miestamo, Matti & Koponen, Eino. 2015. Negation in Skolt Saami. In Miestamo, Tamm & Wagner-Nagy (eds), 353–375. <https://doi.org/10.1075/tsl.108.13mie>
- Miestamo, Matti, Tamm, Anne & Wagner-Nagy, Beáta (eds). 2015. *Negation in Uralic Languages* [Typological Studies in Language 108]. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.108>
- Miestamo, Matti & van der Auwera, Johan. 2011. Negation and perfective vs. imperfective aspect. *Chronos* 22: 65–84.
- Nishiyama, Atsuko & Koenig, Jean-Pierre. 2010. What is a perfect state? *Language* 86(3): 611–646. <https://doi.org/10.1353/lan.2010.0014>
- Parsons, Terrence. 1990. *Events in the Semantics of English*. Cambridge MA: The MIT Press.
- Pietsch, Lukas. 2009. Hiberno-English medial-object perfects reconsidered. A case of contact-induced grammaticalisation. *Studies in Language* 33(3): 528–268. <https://doi.org/10.1075/sl.33.3.02pie>
- Pietsch, Lukas. 2010. What has changed in Hiberno-English: constructions and their role in contact-induced change. *Sprachtypologie und Universalienforschung* 63(2): 118–145.
- Ramchand, Gillian. 2004. Two types of negation in Bengali. In *Clause Structure in South Asian Languages*, Veneeta Dayal & Anoop Mahajan (eds), 39–66. Dordrecht: Kluwer. https://doi.org/10.1007/978-1-4020-2719-2_2
- Ramchand, Gillian & Svenonius, Peter. 2014. Deriving the functional hierarchy. *Language Sciences* 46(B): 152–174. <https://doi.org/10.1016/j.langsci.2014.06.013>
- Servaitė, Laimutė. 1988. Subjektinis rezultatyvas lietuvių kalboje (Perfekto formos su rezultatinės būsenos reikšme) (Subjective resultative in Lithuanian [Perfect forms denoting resulting state]). *Kalbotyra* 39(1): 81–89.
- Slišienė, Nijolė. 1964. Apie sudurtines atliktines veiksmažodžio laikų ir nuosakų formas lietuvių literatūrinėje kalboje (On the compound perfect tenses and moods of verbs in Lithuanian standard language). *Lietuvių kalbotyros klausimai* 7: 81–95.

- Slišienė, Nijolė. 1967. Lietuvių literatūrinės kalbos sudurtinių veiksmažodžio formų struktūra (The structure of compound verbal forms in Lithuanian standard language). *Lietuvių kalbotyros klausimai* 9: 63–84.
- Slišienė, Nijolė. 1969. Sudurtinių atliktinių veiksmažodžio laikų reikšmės ir vartojimas (Meaning and use of the compound perfect tenses). *Lietuvių kalbotyros klausimai* 11: 17–40.
- Slišienė, Nijolė. 1995. The tense system of Lithuanian. In *The Tense Systems in European Languages*, Vol. II, Rolf Thieroff (ed.), 215–232. Tübingen: Niemeyer.
<https://doi.org/10.1515/9783110958911.215>
- Slomanson, Peter. 2009. Morphosyntactic finiteness as increased complexity in a mixed negation system. In *Complex Processes in New Languages* [Typological Studies in Language 108], Enoch O. Aboh & Norval Smith (eds), 234–264. Amsterdam: John Benjamins.
<https://doi.org/10.1075/cll.35.16slo>
- Stockwell, Robert P., Schachter, Paul & Partee, Barbara H. 1973. *The Major Syntactic Structures of English*. New York NY: Holt, Rinehart & Winston.
- de Swart, Henriëtte. 2012. Verbal aspect. In *The Oxford Handbook of Tense and Aspect*, Robert I. Binnick (ed.), 752–780. Oxford: OUP.
- de Swart, Henriëtte & Molendijk, Arie. 1999. Negation and the temporal structure of narrative discourse. *Journal of Semantics* 16(1): 1–42. <https://doi.org/10.1093/jos/16.1.1>
- Tamm, Anne. 2011. Cross-categorial spatial case in the Finnic nonfinite system: focus on the absentive TAM semantics and pragmatics of the Estonian inessive m-formative nonfinites. *Linguistics* 49(4): 835–944. <https://doi.org/10.1515/ling.2011.025>
- Trubinskij, Valentin I. 1984. *Očerki ruskogo dialektnogo sintaksisa* [Studies in the syntax of Russian dialects]. Leningrad: Leningrad University Press.
- Veselinova, Ljuba. 2015. Not-yet expressions in the languages of the world: A special negator or a separate cross-linguistic category? Presentation at the international conference “Diversity Linguistics: Retrospect and Prospect”, Leipzig, 1–3 May.
- Zanuttini, Rafaela. 1996. On the relevance of tense for sentential negation. In *Parameters and Functional Heads. Essays in Comparative Syntax*, Adriana Belletti & Luigi Rizzi (eds), 181–207. Oxford: OUP.

