When the search domain is back region in Baltic: The Latvian *aiz* as compared to the Lithuanian *už*

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Abstract. The paper sets out to examine prepositional polysemy in the Baltic languages. More precisely, the investigation focuses on the semantic structure of the Latvian preposition *aiz* + Gen. ‘behind, beyond’ as compared to the Lithuanian *už* + Gen. / Acc. ‘behind, beyond, for’ discussed in our previous paper (Šeškauskienė & Žilinskaitė-Šinkūnienė 2015). The methodology of research relies on the cognitive linguistic framework, mainly on the principle of motivated polysemy. Its key idea is that in the semantic network of the preposition all senses are seen as directly or indirectly linked to the central sense. In the case of *aiz* and *už*, the central sense encodes information about spatial configuration of Figure and Ground with the former located in the back region of the latter. A number of other senses, mostly concrete, derived from the central sense, overlap in Latvian and Lithuanian but demonstrate a differing degree of entrenchment. The most distinct differences are identifiable in the abstract senses.

Keywords: prepositions, semantics, cognitive framework, Latvian *aiz*, Lithuanian *už*
1 Introduction. Scope of the problem

Prepositional semantics has received considerable attention from linguists working in different languages. Linguists have generated an enormous amount of literature about space and prepositions in particular. Talmy’s idea (2000, 179) that closed-class elements, such as prepositions or affixes, help organise the conceptual material has been largely agreed and verified on the data of many languages (see, for example, Cienki 1989; Cuyckens 1991; Taylor 1993; Haspelmath 1997; Maljar & Seliverstova 1998; Geeraerts 1992; Bellavia 1996; Levinson 2003; Tabakowska 2003; Berg-Olsen 2005; Przybylska 2002; Pawelec 2009; Lipovšek 2014; Šeškauskienė & Žilinskaitė-Šinkūnienė 2015, among others). The cognitive linguistic framework has been particularly effective when dealing with the semantic intricacies of “small” words, such as prepositions.

Prepositions are known to conceptualise spatial relations in language-specific ways; moreover, they are notoriously polysemous. In addition, in inflecting languages, such as Lithuanian (further also LT) or Latvian (further also LV) they are inevitably linked to cases and sometimes also to prefixes, which often coincide with prepositions and are used together, for example, Jis užlindo už spintos ‘He slipped behind the wardrobe’. It is therefore understandable that some scholars tend to treat prepositions together with prefixes and include them into a single semantic network. On the other hand, prefixes have their own semantics, which does not in all cases overlap with prepositions (for the debate over the Polish preposition za and a corresponding prefix in Polish see Tabakowska 2003; 2010; Pawelec 2009; Przybylska 2002; for the overview of the semantics of the Latvian verbal prefix aiz- see Deksne 2019).

We adhere to the view that despite some semantic overlap, prepositional meaning is rather distinct and should be treated separately from prefix. Such view is in line with Langacker’s claim that prepositions are not the best examples of “closed-class” forms and that they have “definite conceptual meanings which are sometimes fairly elaborate” (Langacker 2010, 13). We would also adhere to the view that if a preposition governs several grammatical cases, they should be joined into a single semantic network (see Šeškauskienė & Žilinskaitė-Šinkūnienė 2015 for the Lithuanian už; Shakhova & Tyler 2010 for the Russian za; Tabakowska 2003 for the Polish za).

The network is based on the motivated meaning approach whereby motivation is understood as explainability (Matlock 2004) advocated by a number
of linguists working in the cognitive linguistic framework (e.g. Radden 1985; Lakoff 1987; Taylor 1993). Motivation underlies the idea of radiality in polysemy, which is often contrasted with the approach of distinct multiple senses usually found in structural linguistics. In interpreting prepositional meaning, a number of Lithuanian and Latvian scholars posit independent senses providing a traditional description of prepositional semantics or lay emphasis on diachronic links among the senses (Grabis 1959; Endzelīns 1971[originally, 1905]; Nītiņa 1978; Ambrazas 1997; 2006; Valiulytė 1998). Some scholars working in the cognitive linguistic framework have attempted to establish motivated links between senses of selected prepositions, mainly in Lithuanian (see Šeškauskienė 2001; 2004; 2007; Mikulskas 2009; Šeškauskienė & Žilinskaitė-Šinkūnienė 2015).

Our previous paper (ibid.) gives an account of a motivated semantic network of one selected preposition in Lithuanian, \textit{už} + Gen. / Acc. ‘behind, beyond, for’, which primarily expresses the idea of a back region of one of the participants in the local scene. Latvian \textit{aiz} + Gen. in the expression of the back region overlaps to a large extent with Lithuanian. Differing senses are mostly concerned with the accusative case governed by the Lithuanian \textit{už} and with some language-specific synchronic and diachronic features. To verify the hypothesis, we will further focus on the analysis of the Latvian \textit{aiz} and compare its senses to those established in Lithuanian.

2 Key notions and methodological framework

Scholars working on prepositional semantics usually make use of at least two key notions: Ground (further also G, see Talmy 2000; also referred to as Landmark, see Langacker 1987; 2010), which is a more backgrounded element of a spatial scene, a reference point, and Figure (further also F, see Talmy 2000; also referred to as Trajector, see Langacker 1987; 2010), a more foregrounded element of the spatial scene, which is or has to be located. The two notions are illustrated in example (1) below:

(1) \textit{There is a bicycle (F) behind the tree (G)}.

Like the English \textit{behind}, as illustrated in the above example, the Latvian \textit{aiz} and the Lithuanian \textit{už} refer to the back region, which is understood as area to
G or its part "in which a specific description is valid" (Svorou 1994, 13). The items chosen for this investigation are typical projective prepositions, i.e. they require angular information in their interpretation (Levinson 2003, 62–69). Angular information is rendered through certain frames of reference (further also FoR): intrinsic and relative (ibid.). The former is binary and consists of F and G with the vantage point matching with G. In other words, G has its inherent or functional parts, such as front or back primarily identifiable in humans and also in some artefacts to which human fronts and backs are transferred, such as in a car whose front coincides with the part which the driver and the passengers are facing and the back which is opposite to the front and coincides with the back of the driver and the passengers. When the speaker changes his / her position, the front and / or back of a human or a car does not change. The relative FoR is more complex in that it is ternary and consists of F, G, and the viewer, or conceptualiser, of the spatial scene. As seen in example (1), the tree does not have its own back; rather, it is imposed by the conceptualiser and may change when the speaker’s position changes.

In our analysis, we adhere to the framework suggested by Tyler and Evans (2003; also see Tyler 2012), who attempt to systematize the multiplicity of some English prepositions suggesting that all senses are derived from a proto-schema, or conceptual schema (Navarro i Ferrando 1998; also see Langacker 2010), primarily realised in the central sense. All other senses are derived from the central sense according to some established principles. Collectively, they are referred to as principled polysemy approach (Tyler & Evans 2003, 45–53; Tyler 2012, 132f.). According to the approach, the identification of central, or primary, sense is based on linguistic and empirical evidence. The first type of evidence includes such criteria as earlier attested meaning, predominance in the semantic network, use in composite forms, relation to other spatial particles and grammatical predictions (Tyler & Evans 2003, 47). Empirical evidence is concerned with the evidence derived by experimentation; it supplements linguistic evidence. Without questioning the relevance of the criteria, we assume that some of them are more important than others, depending on a concrete preposition.

Other senses directly or indirectly derived from the central sense may also provide information on the relationship between F and G defined in terms of geometry (such features as size, configuration, trajectory of movement,
etc.), relationship to the conceptualiser, G’s function, which is interpreted as immediate purpose for which G is used, such as driving in the expression *behind the wheel*, or any other relationship, such as container in the interpretation of the preposition *in* and support in the interpretation of the preposition *on* (see Langacker 2010; Jamrozik & Gentner 2011). What seems to be no less important includes more general principles, such as encyclopaedic knowledge, embodiment, real-world force dynamics, fictive motion, metaphor and different construal operations (see, for example, Tyler 2012, 134). For example, the principle of embodiment is important when identifying the back region in respect to the conceptualiser or identifying the central sense as more physical, closer to our bodily experience, metaphor is paramount in defining more abstract senses referring to emotions, values, etc. (for more on metaphor identification see Steen et al. 2010). Most of the principles are described in detail in our previous paper (Šeškauskienė & Žilinskaitė-Šinkūnienė 2015).

Shakhova and Tyler (2010) have applied Tyler and Evans’s model in the analysis of the Russian preposition *za*. The paper may be worth a detailed discussion; however, for the reasons of space we would only point out that in the overall semantic network of the preposition, some senses, mostly concrete, physical, were described in more detail and their relationship to other senses has been well-motivated. Some other senses, mostly abstract, were only briefly sketched. The motivation of abstract senses of *za* and their relationship to the concrete senses is not very explicit. However, where possible, we are going to compare the interpretation of the Latvian *aiz* with the results of the Russian *za* (idem.) and also refer to other studies of back region prepositions in inflecting (mostly Slavonic) languages (Tabakowska 2003; Przybylska 2002; Cienki 1989; Lipovšek 2014).

**3 Previous research on the Latvian *aiz***

The largest dictionary of Latvian (LLVV 1972, 50f.) distinguishes three senses of *aiz* + Gen. according to semantic domains: 1) spatial (includes five sub-meanings): location on the other side or in the back, motion to that region, boundary, sequence; 2) interactional (indicates what is touched, captured, led, held); 3) abstract (reason). In LVV 1987 (p. 21) four senses of *aiz* + Gen. are provided: 1) spatial (refers to a place where sb or sth is located, takes place
or is moving to, which is on the other side or in the back region of the object, expressed by the word following the preposition); 2) refers to the object which is touched by embracing or grasping it; 3) sequence; 4) reason. The same senses are also found in LVV 2006 (p. 22).

In all the above dictionaries the senses of aiz are arranged starting with the spatial sense. In some studies focusing on Latvian prepositions, links between the senses are identified (Endzelīns 1971; Nītiņa 1978). Endzelīns (1971, 326–329) describes the semantics of aiz starting from the spatial sense and relating other senses thereto. The spatial sense of aiz underlies syntagmata with the verbs referring to grasping, catching, holding, pulling, etc. The temporal meaning is also based on the spatial understanding of aiz. The spatial meaning develops into comparative and further into the meaning of ‘more’ where aiz is frequently used with numerals, still further development results in the causal sense, or aiz causale. The meaning of substitution ‘instead of’ is also explained as having its roots in the spatial meaning.

Nītiņa (1978, 40–46) discusses the development of aiz from the beginning of the Latvian written language and identifies several senses: spatial (on the other side, or behind), direction, type of fastening, grasping, catching, taking, etc., spatial and temporal sequence, reason, purpose, substitution and comparison, also separately lists formulaic expressions with aiz. She also attempts to account for the semantic relationships between the senses and points at the entrenchment of some senses during certain periods of language development.

Rozenbergs (1975) focuses on adverbal constructions with genitive used with the preposition aiz; his main question is the treatment of the so-called prepositional cases on a syntactic level. The scholar offers some important insights into the semantics of aiz; he rightly points out that some senses of aiz (temporal, comparative, “instead of”) are non-existent in contemporary Latvian.

The semantics of aiz has been discussed fairly extensively in Latvian linguistics, albeit mostly in the framework of diachronic or structural linguistics. We adhere to a more cognitively-oriented approach and aim to provide a motivated network of the senses of the Latvian aiz comparing it to the network of the Lithuanian už. Before we proceed to the analysis, we will discuss the diachronic development of the Latvian preposition and describe the data and the procedure of the investigation.
4 The Latvian aiz from a diachronic perspective as compared to the Lithuanian už

Diachronic evidence in many cases helps explain certain phenomena which cannot be accounted for by a purely synchronic approach. It is therefore important to refer to certain facts of diachronic development of the preposition referring to the back region of G in the two Baltic languages. The Latvian aiz stems from IE *ghō ‘behind, under’, cf. LT až, ažū ‘behind’, Slav. za ‘idem’. According to Endzelīns, the present-day form aiz is the result of merging az and iz (Karulis 2001, 59). LV aiz governs genitive in singular and dative in plural, the latter case being generalised with all prepositions in plural (Endzelīns 1951, 632–635).

The Lithuanian už is more complex, from both formal and semantic points of view (Zinkevičius 1981, 189; Ambrazas 2006, 294; also cf. Endzelīns 1971, 319–330, 409–413; Endzelīns 1951, paras 497–500; Fraenkel 1929, 166–174). Firstly, it governs two cases: genitive and accusative in both singular and plural. Secondly, the diachronic development seems to be more complicated. In Old Lithuanian, there were two prepositions which eventually evolved into už ‘behind, for’: ažu + Gen. ‘behind’ < IE *ghō ‘behind, under’, cf. LV aiz, dial. az ‘behind’, Slav. za ‘idem’, and už + Acc. ‘direction: onto the surface’ < IE *ūd- / ǔd- ‘up, on’, cf. LV uz ‘on, towards’, OCS vъz(ь) ‘upward, onto, for, in exchange for’ (Zinkevičius 1981, 189; Ambrazas 2006, 294). As a result of merging, the contemporary Lithuanian preposition už governs two cases and is highly polysemous, which was demonstrated in our previous paper (Šeškauskienė & Žilinskaitė-Šinkūnienė 2015) and will be used for reference in subsequent sections in this paper.

5 Data and procedure

The data for the analysis of the Latvian aiz has been collected from the Lithuanian-Latvian, Latvian-Lithuanian parallel corpus (LILA, ca 8.8 m running words) specifically focusing on the sub-corpus of direct translations (ca 1.7 m running words; for more information about the LILA corpus see Rimkutė et al. 2013). Further in this paper, LILA refers to this sub-corpus of Latvian-Lithuanian.

In LILA, the total number of the occurrences of aiz was 768; all of them were manually annotated for various semantic predictors that might help delin-
eate different senses of the preposition under study, namely, types of F and G (animate, inanimate, body part, abstract), type of verb (static / dynamic), meaning (spatial vs other). In addition, as the data of the parallel corpus provides a possibility to compare the Latvian aiz with its correspondences in Lithuanian, all Lithuanian translation equivalents were listed as well.

Some senses in LILA were not represented properly because of their low frequency or lack of context required to understand a specific sense. In such cases we added examples from the Corpus of Contemporary Latvian (LVK 2018) where aiz occurs 3,187 times. For the purposes of this investigation, we randomly selected 1,000 concordance lines.

As already mentioned, when deciding upon a concrete sense of the preposition, we adhered to the general cognitive linguistic principles and the principled polysemy approach outlined above. In addition, we also followed steps of prepositional sense identification, which are partially based on the principles of metaphor identification procedure (see Steen et al. 2010). First, we examined each context trying to identify types of F and G as well as their relationship. Then we tried to identify a (possible) metaphorical transfer into the domains of time, emotions, social relations, etc. Third, we took into consideration the frequency of use with very rare cases attributed to marginal usage or usage bordering extinction. Fourth, the diachronic development and typological data were referred to, especially in cases where other criteria were not helpful.

6 Results and discussion
This section is structured as follows: as Latvian is our main focus, we primarily describe the Latvian aiz; at the same time, we compare the Latvian data with Lithuanian, also providing examples from the parallel corpus. We start with the central sense of the preposition LV aiz, then discuss other overlapping senses of LV aiz and LT už and, finally, outline the differences.

6.1 Overlapping senses
As a result of our analysis, eight senses turned out to be overlapping in Latvian and Lithuanian. In addition to the central sense of location in the back region, both languages share the sense of function, support, control, obstacle, hiding and covering, boundary and border, and sequential location. Trying not repeat what has been written in our previous paper about the Lithuanian už
(Šeškauskienė & Žilinskaitė-Šinkūnienė 2015), most examples included in our further analysis and discussion are from Latvian.

6.1.1 The central sense of the Latvian aiz: location in the back region

Like the Lithuanian už, the Latvian aiz posits a central sense with F located in or moving into the back region of G. The back region is conceptualised through either intrinsic or relative FoR. In case of intrinsic FoR, G is asymmetrical, which means that its back region is identified through its inherent or functionally salient parts, such as G’s, who is human, back, for example:

(2) LV Mēs stāvam ielas malā, mums
LT Mes stovime gatvės pakраšty, mums

1pl.nom stand.prS.1pl street.gen.sg side.loc.sg 1pl.dat

LV aiz muguras zila neona reklāma […]
LT už nugaros melyna neoninė reklama […]

behind back.gen.sg blue.nom.sg neon.gen.sg advertisement.nom.sg

‘We are standing on the side of the street, behind our backs there is a blue neon advertisement.’

The expression aiz muguras metonymically refers to a person and is quite frequent in our data. Both languages give preference to lexemes referring to persons; typically, in the context where door features as F closing behind someone (G), e.g.:

(3) LV Durvis aiz viņa aizcirtās.
LT Durys už jo užsitrenkē.

doors.nom.pl behind 3.gen.sg.m shoot.pst.3

‘The door slammed shut behind him.’

However, in the realisation of the central sense, Latvian and Lithuanian demonstrate certain differences. In contexts like (3), Latvian employs lexemes
denoting animate Gs, whereas Lithuanian highlights G’s body part, mainly back, for example:

(4) LV *Durvis* *aiz* *Ingunas* noklaudēja.

LT *Už* *Ingunos* nugaros sutrinksējo *durys*.

‘The door behind Inguna has banged.’

One of contextual features in Latvian is the phrase *aiz sevis* ‘behind oneself’, which is hardly ever found in the Lithuanian translation:

(5) LV *Ārija* aizver *aiz* *sevis* ārsta *kabineta*

LT *Arija* užveria gydytojo *kabineto* *duris* [...]

‘Arija closes the door to the doctor’s office [behind herself].’

Apparently, contexts with the door closing behind someone are sometimes rendered into Lithuanian by adopting a different windowing of attention (Talmy 2000, 271–274). As can be attested in (6), the resulting sub-event in Latvian is rendered as a causative clause in Lithuanian or a different viewpoint is chosen swapping the agent with the patient, e.g.:

(6) LV *Kad* *aiz* *Jāņa* *aizvērušās* *durvis* [...]

LT *Kai* *Janis* išeidamas uždaro *duris* [...]

‘When the door behind Janis closes [...].’

In the central sense, *mugura* ‘back’ is not the only lexeme in the position of G. The back region through intrinsic FoR is also referred to by other body parts, such as *plecs* ‘shoulder’, *auss* ‘ear’, *galva* ‘head’, *plakstiņi* ‘eyelids’, *kakls*
‘neck’, the latter usually meaning ‘collar’. A clearly identifiable front-back distinction is also valid for clothes or fabrics, such as krekl ‘shirt’, dzīnas ‘jeans’, apkakle ‘collar’, dekoltė ‘décolleté’, padrēbe, odere ‘lining’, pārvalks ‘covering’, or human-worn artefacts, such as brilles ‘glasses’, e.g.:

(7) LV  Sniegs aiz apkakles.
       snow.nom.sg behind collar.gen.sg

       LT  Už apykalēs pilna sniego.
            behind collar.gen.sg full.na snow.gen.sg

‘Snow behind the collar.’

Another group of Gs includes inanimate objects with the front / back distinction according to their functional parts, such as direction of movement for vehicles or entrance for buildings.

As already discussed, in case of relative FoR, the back region is identified in reference to the conceptualiser and may change when the conceptualiser’s position changes, e.g.:

(8) LV  Viņa ierauga pelēku seju
       grey.adv see.nom sg face.acc sg

       LT  ji pamato pilkā veidą
            3.nom sg see.prsg face.acc sg

       LV  aiz restota loga.
            behind grey accent sg window

       LT  už grotuoto langa.
            behind barred.pst.ppl sg window

‘She notices a grey face behind a slatted window.’

When the back region is imposed through relative FoR, Gs are more varied. The most frequent are lexemes denoting different plants, sections of a house or a yard, such as siena ‘wall’, durvis ‘door’, logs ‘window’, rūts ‘pane’, žogs ‘fence’, dzīvžogs ‘hedge’ and other objects lacking intrinsic front or back. These sides are identified depending on the position of the viewer / conceptualiser.

6.1.2 Function
In the function sense, F and G interact in physical space in a specific way according to G’s main function: table is used for writing or eating, counter for customer service, wheel for driving. In both Baltic languages, a limited number
of lexemes are employed as Gs. This sense seems to be more firmly established in Slavonic languages (Cienki 1989, 115–117; Prybylska 2002, 342f.; Shakhova & Tyler 2010; Lipovšek 2014), since a larger variety of objects are employed as Grounds used according to function (in Cienki’s and Lipovšek’s terminology, objects of activity). They include tables, driving wheels, pianos, computers, etc. In our Latvian corpus, only lete ‘counter’ (also reģistratūras lete ‘reception desk’) and galds ‘table’ (also rakstāmgalds ‘desk’, karšu galds ‘card table’) have been attested, e.g.:

(9) LV viņš […] sagaidīja pircējus stāvēdams aiz letes […]
    3.NOM.SG.M meet.PST.3 buyer.ACC.PL stand.CVB.SG.M behind
counter.GEN.SG

LT jis […] sutikdavo pirkėjus stovėdamas už prekystalio […]
    3.NOM.SG.M meet.PST.3 buyer.ACC.PL stand.CVB.SG.M behind
counter.GEN.SG

‘He met his customers standing behind the counter.’ [=working as a salesperson]

(10) LV Kapteinis Mordāns sēdēja krēslā aiz
    captain.NOM.SG PN.NOM.sit.PST.3 sit.PST.3 chair.LOC.SG behind

LT Kapitonas Mordanas sėdėjo krėsle prie
    captain.NOM.SG PN.NOM sit.PST.3 chair.LOC.SG at

LV liela karšu galda un kūpināja
    big.GEN.SG card.GEN.PL table.GEN.SG and smoke.PST.3

LT didelio kortų stalo ir papsėjo
    pipe.ACC.SG

‘Captain Mordan sat in a chair behind a large card table and smoked a pipe.’

Even though in (10) LT employs the preposition of proximity prie ‘at’ (prie stalo ‘at the table’), už stalo ‘behind the table’ is also possible. It is assumed that už with the table as G originates from the relative FoR as the table in
traditional Lithuanian houses was placed opposite the door, and looking from the point of view of a person entering the room people were seen as sitting behind the table; later such usage became entrenched for all positions around the table (Šukys 1998, 522). Other Gs as objects of activity, especially the driving wheel, are explained by more traditional Lithuanian linguists as a result of Russian influence and replaced by prie vairo ‘at the driving wheel’. However, sitting behind the wheel when driving is rather common in spoken Lithuanian. Interestingly, in Latvian the only possibility is pie stūres ‘at the driving wheel’. It is worth mentioning that the functional use of the back region prepositions is possible not only in Slavonic, but also in Germanic languages, e.g. German (Er saß hinter dem Lenkrad, Przybyska 2002, 343) or English (albeit not productive, e.g. the man behind the wheel / the computer screen / the desk / the counter, Lipovšek 2014, 166).

In older texts, as attested by Fraenkel (1929, 175), not only tables, but also plates and cutlery as objects of activity were possible; however, such usage is not attested in contemporary Lithuanian. Interestingly, in our corpus, we found one LV example with a glass as an object of activity:

(11) LV Arī Florenci Bronte pieveda pie galda, kur viešņa bija nosēdināta aiz pilnas glāzes.

LT Ir Florenciją Brontė nusivedė prie stalo, kur prie pilnos vyno taurės buvo pasodinta viešnia ‘Bronte also brought Florence to the table, where the guest was seated behind a full glass.’

There was one utterance found where G was a camera used according to its function, i.e. for the purpose of filming. As revealed by a broader context, the situation is taking place on a filming site:
Researchers working on Slavonic languages explain the function sense either through intrinsic (Przybylska 2002, 343) or relative (Cienki 1989, 116) FoR. A few years ago, we proposed an intrinsic interpretation for Lithuanian (Šeškauskienė & Žilinskaitė 2015, 13–16) and would adhere to it when interpreting the Latvian aiz. Despite that the sense may have originated from the relative FoR with the table as G, for decoding the meaning, the third member, the observer, of the spatial scene, is not necessary.

6.1.3 Support
In the sense of support, G is conceptualised as a line capable of holding F and preventing it from falling down. G is indeed a linear object in most utterances, such as josta ‘belt, waistband’, aukliņa ‘cord’, gumijينا ‘rubber band’, piedurknes atloks ‘sleeve flap’, gredezens ‘ring’, durvju kliņķis ‘door handle’, in some cases the object’s edge is profiled: slēgis ‘shutter’, austiņa ‘ear’, etc. Typical contexts include Figures-weapons (cirvītis ‘ax’, duncis ‘dagger’, zobens ‘sword’, nazis ‘knife’, pistole ‘pistole’), which are located, squeezed or pushed behind Gs. In such contexts contact between F and G as well as G’s force-dynamic properties are crucial, for example:

(13) LV Gruntem aiz jostas somu duncis.
     PN.DAT behind belt.GEN.SG Finn.GEN.SG dagger.NOM.SG
LT Gruntei už juostos suomiškas peilis.
     PN.DAT behind belt.GEN.SG Finnish.NOM.SG dagger.NOM.SG
‘There is a Finnish dagger behind Gunte’s belt.’

In the sense of support, other Fs are also possible (e.g. naudas zīme ‘banknote’, zariņš ‘twig / branch’, lapīņa ‘leaflet’, vedeklis ‘hand fan’). As
a rule, Fs often exceed Gs in size (and thus do not conform to the typical F–G properties defined by Talmy 2000, 183); however, the property does not preclude a specific relation between F and G, e.g.:

(14) LV Kadiķis noņēma aiz vecā durvju
    PN.NOM remove.PST.3 behind old.GEN.SG.M.DEF door.GEN.PL
    klinķa aizsprausto zariņu, kas
    handle.GEN.SG stick.PST.PP.ACC.SG.DEF twig.ACC.SG INT.NOM
    pieturēja durvis […]
    hold.PST.3 door.ACC.PL

Kadugys ištraukė už senos rankenos
    PN.NOM remove.PST.3 behind old.GEN.SG.F handle.GEN.SG
    užkištą šakelę, kuri prilaikė duris […]
    stick.PST.PP.ACC.SG twig.ACC.SG INT.NOM hold.PST.3 door.ACC.PL

‘Juniper removed the twig stuck behind the old door handle which held the door.’

G’s types of objects employed in this sense are in conformity with the interpretation of the intrinsic FoR. However, relative FoR cannot be entirely excluded.

6.1.4 Control

In the sense of control, animate F exerts force onto G thus making contact inevitable. The sense is realised in utterances with verbs referring to actions and activities indicating pressure or other strong impact on G (e.g. (iz-/)raut ‘pull (out)’, (no-)satvert, (sa-/pa-)noķert ‘catch’, grābt ‘grasp’, purināt ‘shake’, izmest ‘throw away’, paraut ‘hitch’, (pa-/)vilkt ‘drag’, raustīt ‘twitch’, pakampt ‘snatch’, celt ‘lift’); in some cases, more neutral verbs are also possible (e.g. (pa-/no-/pie-)turēt ‘hold’,ņemt ‘take’, saņemt ‘get’). Gs range from artefacts to plants to humans. G is usually affected through its (inalienable) part, which is often linear or pipe-like, such as body parts (15), pieces of clothing or their parts (e.g. stērbele ‘hem’ or poga ‘button’: saķert aiz svārku malas ‘catch by the edge of the skirt’), sides or parts of plants (e.g. saņemt sēni aiz cepures ‘to pick a mushroom behind its head (lit. cap)’), also artefacts or their parts (e.g. iemaukti ‘bridle’, pavada ‘bridle rein’, virve ‘rope’, diegs ‘thread’, stiprinājumi ‘strapping’; satvert glāzi aiz kājiņas ‘grab the glass by the stem’), e.g.
In LILA, there are quite a few idiomatic expressions, which are motivated by the sense of control, such as raustīt aiz īsām ‘pull sb by his moustache’ [=‘annoy, tease sb’], vazāt aiz deguna ‘lead sb by his / her nose’ [=‘make a fool of sb’].

In our data, the sense of control is the second most frequent sense and, apparently, is deeply entrenched in usage. The sense has been derived from the spatial sense and may have originated from situations requiring instantaneous reaction, hence the frequency of the verbs of grab or snatch type. Interestingly, situations where F exerts control over G by, primarily, putting his / her hand so that it reaches behind the back region of G’s part, like grabbing a handle of a refrigerator, may be interpreted within the intrinsic as well as relative FoR. The latter is preferred by Tabakowska (2003, 166), who explains the situation through the notion of accessibility of G via its part, a secondary reference object. Shakhova and Tyler (2010) see such situations within the binary FoR highlighting contact between F and G.

6.1.5 Obstacle
The sense of obstacle is derived from the central sense and is related to the sense of control. However, in the sense of control, F affects G, whereas in the sense of obstacle F is affected by G. F is prototypically human or refers to a body part, mainly a leg or a hand, which sometimes metonymically stands for a person. A moving hand or leg contacts G, which is a natural or artificial obstacle or barrier, such as sliede ‘rail’, siksna ‘strap’, kēde ‘chain’, ākis ‘hook’, krampis ‘a hook for the door’, paksis ‘corner of the house’, sakne ‘root’, dzeloņstiepes ‘barbed wires’, or zars ‘branch’. G changes the course of movement of a volitional F and / or prevents a mobile F from further activity or movement. The sense is realised in contexts where verbs reiterate the sense by expressing the idea of hitching, catching or hooking, e.g. aizķerties, aizmesties ‘catch in / on’, aizāķēties ‘hook up’; the verbal prefix coincides in form with the preposition. F is usually larger than G, e.g.:
I step back from the edge of the ravine, but my foot gets stuck behind the open root.

In the corpus, there are also cases of fictive motion attested. In such utterances, nouns referring to sight or gaze appear as Fs (LV skatiens, LT žvilgsnis), and G is realised through any object that is perceived as a goal of visual search. Naturally, in such utterances verbs of stumble or catch type are frequent.

6.1.6 Hiding and covering
The sense of hiding and covering is usually realised through the relative FoR. In most utterances, G is larger than F and expressed through a variety of objects, such as koks ‘tree’, akmens ‘stone’, mākoņi ‘clouds’, also solid artefacts, such as furniture, buildings or their parts (skapītis ‘locker’, šķūnis ‘shed’, kolonāde ‘colonnade’, stūris, paksts ‘corner’), fabrics (e.g. aizkars ‘curtain’, sega ‘blanket’, palags ‘sheet’, padrēbe ‘cloth’, odere ‘lining’, vēdeklis ‘hand fan’) or artefacts used to protect oneself (e.g. vairogs ‘shield’), also persons or their body parts (e.g. mugura ‘back’, plaukstas ‘hands’). Despite considerable diversity, G is conceptualised as a two-dimensional plane used to cover or hide F. Thus G in this sense is not just a reference point with its back region to locate F. It also functions as a hiding place or protection. In our data, F is frequently human, but could be almost any living being or object, as long as F’s profiled part is smaller than G and hidden or covered by it. F may be visible, but more often it is not, depending on context, and typically appears in contexts with the verbs slēpt (noslēpt) ‘hide’, slēpties (aizslēpties, paslēpties) ‘hide oneself’, patverties ‘find shelter’, pietupties ‘hunker down’, aizkrist ‘fall behind’, aizbāzt ‘push behind’, nobāzt ‘shove’, e.g.
It seems that inaccessibility is the main consequence of the hiding and covering sense; invisibility is only one of its realisations (see examples (17) and (18)). Inaccessibility is also identifiable in idiomatic expressions, such as LV *aiz slēgtām durvīm*, LT *už uždary durų* ‘behind the closed door’ [=‘secretly’], also in different contexts rendering any action, such as sneering or mocking, performed behind someone’s back (LV *aiz muguras*, LT *už nugaros*) where being invisible or inaccessible is paramount.
The sense of hiding and covering apparently gives rise to various expressions motivated by conceptual metaphors, the most prominent being LANGUAGE IS A COVER OF MEANING. Notably, Latvian and Lithuanian abounds in utterances where (true) meaning is hidden behind his / her words, nice phrases, etc.

6.1.7 Boundary or border
In the sense of boundary, G is conceptualised as an area with a salient boundary separating two different sub-areas. The back region of the Ground is transformed into an outer sub-area, which is profiled against the inner sub-area. The outer sub-area is conceptualised via relative FoR; however, the intrinsic interpretation is not completely ruled out. F is usually human, sometimes indirectly referred to by an action or activity, e.g.:

(19) LV – Cauri zonai braukt maksimālā ātrumā,
through zone.DAT.SG drive.INF maximum.LOC.SG speed.LOC.SG
aiz zonas – minimālā.
behind zone.GEN.SG minimum.LOC.SG
LT – Per zoną važiuoti didžiausiu greičiu,
across zone.ACC.SG drive.INF biggest.INSTR.SG speed.INSTR.SG
už zonos – lėčiausiai.
behind zone.GEN.SG slowest.ADV
‘Drive across the zone at maximum speed, beyond the zone at minimum speed.’

G is expressed by lexemes denoting areas (ciems ‘village’, zona ‘zone’) where the boundary is implied or by lexemes denoting boundaries, such as žogs ‘fence’, strīpa ‘line’, polārais loks ‘arctic circle’, pilsētīņas, mājas, ciema, valsts robeža ‘border of a town, home, village, country’, pilšētas vārti ‘gates or wall of a town’, mūris, siena ‘wall’, falšborts, botrs ‘board’, finiša lente ‘finish line’. The boundary may be imposed onto a multiplex object, which is usually perceived as a continuous line, e.g.:

(20) LV – Pilsoņi, nepeldiet aiz bojām!
citizen.VOC.PL NEG.swim.IPFV.PL behind buoy.DAT.PL
LT – Piliečiai, neplaukit už plūdurų!
citizen.VOC.PL NEG.swim.IPFV.PL behind buoy.GEN.PL
‘Citizens, do not swim beyond buoys!’
Some utterances give rise to metaphorical expressions motivated by the sense of boundary. For example, LV "aiz realitātes," LT "už realybės" ‘beyond reality’ both refer to situations where a state or emotion is described as very pleasant, beyond the boundary of dreary reality.

6.1.8 Sequential location
In the sense of sequential location, both F and G are typically humans located one after another in a row, all facing the same direction. According to Talmy (2000, 203), such spatial situations evoke an encompassing secondary reference object, which becomes paramount for the overall conceptualisation of the spatial scene. Secondary G is a row or a line ("rinda ‘queue, row’, "ierinda ‘formation’, "pajūgs ‘team’, "kolonna ‘column’), which encompasses the primary G, e.g.:

(21) LV Linmeijers atgriežas ierindā un nostājas
    NP,NOM return.PRS.3RFL rank.LOC.SG and stand.PRS.3RFL
    kolonnas beigās aiz kapteiņa Melnbārža.
    column.GEN.SG end.LOC.PL behind captain.GEN.SG NP,GEN
    LT Linmejeris grįžta į rikiutę ir stoją
    NP,NOM return.PRS.3 to rank.ACC.SG and stand.PRS.3
    kolonos pabaigoje už kapitono Melbardžio.
    column.GEN.SG end.LOC.SG behind captain.GEN.SG NP,GEN
    ‘Linmeijer returns to the line-up and joins the column at its end
    behind Captain Blackbeard.’

In (21), F is standing behind G in a row; both participants may be in motion (22), following one another along the same path, which is inferred from context and situation and not explicitly mentioned, e.g.:

(22) LV [...] viņš nogrudzināja tieši tik skaļi,
    3,NOM.SG.M laugh.PST.3 exactly so laud.ADV
    lai to
    in_order DEM,ACC.SG
He laughed out loud, enough to be heard by Šermūkša, who was walking behind him.

F’s trajectory of motion behind G is expressed through motion verbs, mostly sekot ‘follow’ and sošot ‘march, walk’. F is usually conceptualised as a point moving behind the moving G, but it can also be a multiplex object producing a line of imaginary, or fictive, motion, e.g.:

(23) LV Melnas pēdas aiz sevis atstādama,
    black.acc.pl.f footprint.acc.pl. behind refl leave.prs.cvb.sg.f
    Žalktiene [...] devās ārā.
    np.nom go.pst.3refl out

LT Už savēs paliekama ryškius pēdsakus,
    Behind refl leave.prs.cvb.sg.f distinct.acc.pl.m footprint.acc.pl
    Žaltienė [...] išējo laukan.
    np.nom go.pst.3 outside.ill.sg

‘Leaving black footprints behind herself, Zalkeine went outside.’

Sequential location (or motion resp. the sense of following) is also expressed by such phrases as cits aiz cita, vienas aiz otra ‘one after another’ or the same lexemes in F and G, e.g.: Pēdu aiz pēdas, plaukstus aiz plaukstas lika Džimsons (LKV2018) ‘lit. Jimson put his foot behind his foot, his hand behind his hand’. However, utterances with the same lexemes in F and G are rendered into Lithuanian through po, mostly preferred in temporal sequences, rather than už (for more details, see Šėškauskienė & Žilinskaitė-Šinkūnienė 2015) or by other means, e.g.:
(24) LV [viņi] viens aiz otra abi
3.NOM.PL.M one.NOM.SG behind another.GEN.SG both.NOM.PL.M
pazuda virtuve. disappear.PST.3 kitchen.LOC.SG
LT [jie] vienas po kito dingo
3.NOM.PL.M one.NOM.SG after another.GEN.SG disappear.PST.3
virtuveje. kitchen.LOC.SG
‘One by one they disappeared in the kitchen.’

(25) LV Lēzenā traukā liek tomātu un shallow.LOC.SG bowl.LOC.SG put.PRS.3 tomato.GEN.PL and
sīpolu ripiņas citu aiz citas […] onion.GEN.PL slice.ACC.PL other.ACC.SG behind other.GEN.SG
LT Į negilų indą dėkite pomidorų ir to shallow.ACC.SG bowl.ACC.SG put.IMP.2PL tomato.GEN.PL and
svogūnų griežinėlius sluoksniais […] onion.GEN.PL slice.ACC.PL layer.INSTR.PL
‘Put the slices of tomatoes and onions one after another into a shallow bowl.’

The pattern where the same lexemes are employed in F and G is an indication that arranged in a row or line all participants are of equal size or rank. There are no radical changes in the situation if F and G are reversed.

6.2 Differing senses
This section gives an overview of the senses attested only in one of the two languages: three in Latvian (sequential time, hierarchy, and cause and reason) and six in Lithuanian (spatial, temporal and quality distance, replacement, retribution, and benefactive). The senses of the Latvian aiz are described in more detail.

6.2.1 Sequential time in Latvian
Spatial expressions are often used to talk about time in many languages of the world (Haspelmath 1997; Svorou 1994; Heine & Kuteva 2002). The Latvian aiz as a marker of spatial sequence can acquire the meaning of temporal sequence
(posterior). However, such usage is not frequent; in Latvian, posterior is prototypically expressed by the preposition pēc + Gen. In Lithuanian, posterior is also primarily expressed through po + Gen., with už taking a somewhat peripheral position.

In the sense of sequential time, F and G are usually events located one after another, motivated mainly by the sense of sequential location. The Latvian aiz is attested in some entrenched temporal expressions, especially when the same lexeme is employed in F and G (dienu aiz dienas ‘day by day’, minūti aiz minūtes ‘minute by minute’), e.g.:

(26) LV Dienas ritēja cita aiz citas,
day.NOM.PL roll.PST.3 other.NOM.SG.F behind other.GEN.SG.F
LT Dienos slinko viena po kitos,
day.NOM.PL drag.PST.3 one.NOM.SG.F after another.GEN.SG.F
LV vienādas un nemainīgas.
LT vienodos ir monotonīškos.
same.NOM.PL.F and unchanging.NOM.PL.F

‘The days followed one another, identical and unchanging.’

Moreover, the sense is identifiable in set expressions like atstāt kaut ko aiz sevis / muguras, būt aiz muguras ‘leave sb / sth after oneself / one’s back’, e.g.:

(27) LV Viņa ir jauna un stipra –
LT Ji yra jauna ir stipri –
3.NOM.SG.F be.PRS.3 young.NOM.SG.F and strong.NOM.SG.F
LV aiz muguras vēl tikai gadsimta ceturtadnis.
behind back.GEN.SG yet only century.GEN.SG quarter.NOM.SG
LT nuguventa tik ketvirtadalis šimtmečio.
live.PST.PP.NA only quarter.NOM.SG century.GEN.SG

‘She is young and strong, with only a quarter of a century behind her back.’

As can be seen in examples (26) and (27), Lithuanian prefers the temporal po + Gen. where the same lexeme is employed in F and G. In such utterances the expression behind one’s back in a temporal sense is left out altogether.
6.2.2 Hierarchy in Latvian

The sense of hierarchy is derived from the sense of sequential location, possibly motivated by the metaphor **more important is first in line**. The difference in status of F and G can be captured in the utterances of sequential location, especially in spatial scenes describing a military line-up with the leader going in front and his / her subordinates following him behind, e.g.:

(28) LV Katrai priekšgalā virsnieks, aiz viņa
each.DAT.SG.F front.LOC.SG officer.NOM.SG behind 3.GEN.SG.M
kareivji rindā pa četri.
soldier.NOM.PL row.LOC.SG prep four.NOM.PL.M

LT Kiekvienam priekyje karininkas, už jo
each.DAT.SG.M front.LOC.SG officer.NOM.SG behind 3.GEN.SG.M
kareiviai gretomis po keturis.
soldier.NOM.PL row.INSTR.PL prep four.ACC.PL.M

‘At the front of each line there is an officer, **behind him** – soldiers, four in a row.’

Despite the fact that example (28) is interpreted as spatial, the first person in line is perceived as a leader; the Latvian **aiz** is rendered into Lithuanian through **už**. However, the latter is not used to express hierarchy.

In the sense of hierarchy, F and G are usually humans, defined by rank or position, e.g.:

(29) LV Pēc ranga firsts bija aiz hercoga. (LVK 2018)
by rank.GEN.SG earl.NOM.SG be.PST.3 behind duke.GEN.SG

‘By rank, an earl went **after a duke**’. [= was lower than a duke]

Other contexts where the sense of hierarchy is realised include phrases **atstāt aiz sevis** ‘leave after oneself’, **palikt, sekot aiz kāda** ‘leave behind, follow someone’, especially in a more competitive discourse, such as sports news, e.g.:

(30) LV Triumfēja “Ventspils” komanda, aiz sevis
triumph.PST.3 PN.NOM team.NOM.SG behind RFL

456
atstājot “Skonto”. (LVK 2018)
leave.PRS.CVB PN.ACC

‘The team of “Ventspils” triumphed, leaving “Skonto” behind.’

Such usage has its roots in sequential location, namely, in situations with F and G moving in a line where F falls behind G (atpalikt aiz ‘fall behind’) and, consequently, G becomes first in line (resp. more important in status) and the (social) distance between them increases.

6.2.3 Cause and reason in Latvian
The rationale behind the sense of cause lies in the spatial alignment of F and G: objects located one behind / after another in space and time can be conceptualised as linked causally (post hoc, ergo propter hoc), e.g.:

(31) LV Pieliec soli, Melnīt, aiz paugura
    take.IMP.2PL step.ACC.SG PN.VOC behind hill.GEN.SG
    viņi mūs neredz.
    3.NOM.PL.M 1PL.ACC NEG.SEE.PRS.3

LT Sparčiau žingsnį, Juodi, už kalvos
    faster.ADV step.ACC.SG PN.VOC behind hill.GEN.SG
    jie mūsų nemato.
    3.NOM.PL.M 1PL.GEN NEG.SEE.PRS.3

‘Take a step, Black, they can’t see us behind the hill’.
[= over the hill]

In (31), the hill (G) is a location behind which F cannot be seen, but at the same time G can be treated as a cause for F’s invisibility.

In the sense of causation and reason, F is prototypically human; G usually refers to emotions (laime ‘happiness’, uztraukums ‘excitement’, skaudība ‘envy’, etc.), bodily condition or state (nogurums ‘fatigue’, vecums ‘age’, also boredom, e.g. aiz gara laika ‘because of boredom’, etc.) or different circumstances of rather general character (apsvērumi ‘grounds’, pārklausīšanās ‘mishearing’, pārpratums ‘misunderstanding’). Collocations such as aiz ko ‘why’, aiz ieraduma ‘by force of habit’ are also attested. For example:
Such contexts are also related to the sense of hiding and covering, because F can be seen as overwhelmed by an emotion in the same way as F is occluded by G in the sense of hiding and covering.

6.2.4 Spatial, temporal and quality distance in Lithuanian

The three senses of the Lithuanian už were described in our previous paper (Šeškauskienė & Žilinskaitė-Šinkūnienė 2015); therefore, here we will only give a brief overview illustrated by examples from CCLL. In the sense of spatial distance, G usually specifies distance measured in quantifiable units (steps, metres, kilometres), but F is more often an artefact, object of nature or landscape, e.g.: Siena buvo už kelių žingsnių ‘The border was in (lit. behind) a few steps’.

The sense of temporal distance is derived from the sense of spatial distance via the conceptual metaphor time is space. In the sense of temporal distance, Fs are objects, persons or events perceived as occurring in a temporal sequence where G is a period of time, e.g.: Darbas prasideda už pusvalandžio ‘Work starts in (lit. behind) half an hour’.

In the sense of quality distance, the location of F behind G is a prerequisite for comparing both participants with G functioning as a standard of comparison, e.g.: Jis buvo aukštesnis už mane ‘He was taller than (lit. behind) me’. Endzelīns (1971, 327f.) mentions the comparative meaning as relevant for Latvian as well (Anna smukāka aiz Trīnas ‘Anna is more beautiful than Trina’); however, he is only familiar with such usage from folk songs.

6.2.5 Replacement and retribution / remuneration in Lithuanian

In this sense, F is thought of as replacing G in terms of value and role, e.g. money given for an item, decision taken for another person, etc. The sense is derived from the sense of sequential location, e.g.: Aš esu nepilnametē. Dabar jie viską už mane sprendžia ‘I am a minor. Now they decide everything for me.'
“instead of me’). Endzelīns (1971, 329) provides three examples meaning ‘instead of’ in Latvian (e.g.: aiz māmiņas malties gāju ne aiz brāļa līgaviņas ‘I went to grind for my mother [=instead of my mother], but not for the brother’s bride’). He also refers to Pott’s explanation about the Slavic za in the same sense: if the front-man cannot fulfil his obligations any more, the one who is behind him steps in and gets the attention, and overtake the obligations.

In the sense of retribution, Gs are abstractions like pain or sorrow, wrongdo-ing or acts worth appreciation and gratitude (e.g.: Ačīu už visk, Akseli! ‘Thank you for everything, Axel!’).

6.2.6 Benefactive in Lithuanian
The benefactive sense can be understood as derived from the sense of sequential location. If F is following G, the distance between them may vary. When F catches up with G from behind, in the abstract domain this action can be interpreted as support provided for G who thus becomes a benefactive (for cross-linguistic data, see Svorou 1994, 158). Gs are usually humans and abstractions (people we love, respect and care, values, such as homeland, freedom or independence), but Fs are humans performing such actions and activities as fighting and going to war, or voting for someone, also less explicitly active undertakings, such as prayers and good wishes, e.g.: Geriu už jus, maestro ‘I am drinking to you, maestro’.

7 Concluding remarks and a way forward
We have proposed a network of related meanings of the Latvian preposition aiz + Gen. and the Lithuanian preposition už + Gen. / Acc. and tried to explain their meaning extensions. All senses are directly or indirectly derived from the central sense ‘F in the back region of G’ and are motivated by different types of F and G, their spatial configuration, functional relationship, conceptual metaphor; change in distance between the F and G may lead to change in their status in abstract domains. The senses are not always clear-cut; rather, they form a continuum and the boundaries between them in many cases are fuzzy. Notably, there are senses, such as support, control, obstacle, which can be equally based on both FoRs: intrinsic and relative.
As can be seen from Figure 1, offering a full view onto the senses of the two prepositions, the semantic network of the Latvian *aiz* is not as complex as that of the Lithuanian *už*. This may be due to a specific diachronic evolution of the Lithuanian *už*, which developed by merging Old Lithuanian *už* and *ažu*. As a result, in contemporary Lithuanian *už* governs two cases (genitive and accusative) and is extremely polysemous.

Our analysis has demonstrated that most senses of *aiz* and *už* overlap. Some senses have rather limited realisation; for example, temporal sequence in Latvian and temporal distance in Lithuanian are prototypically expressed by other prepositions (*LV* *pēc* + Gen. and *LT* *po* + Gen.).

Figure 2 demonstrates the quantitative distribution of all senses of the Latvian *aiz* in LILA corpus. It is most frequently used in its central sense (47%), which is mainly expressed via the relative FoR. The sense of control is
the second most frequent (12%). The sense of hiding and covering also features rather prominently (10%) in the data and is the one that tends to be frequently employed in metaphorical expressions. It is also related to the sense of cause and reason (8.5%); for example, emotions may be perceived as a cover and as a cause of some action or activity. Sequential location is attested in 8% of the cases and is semantically entrenched: it gives rise to the senses of hierarchy and sequential time, which are found rather scarcely in LILA but nevertheless have specific contexts of usage, for example, the sense of hierarchy clearly features in ranking and competitive contexts, whereas the sense of sequential time—in fixed temporal expressions. The remaining senses (boundary and border, support, obstacle and function) are closely linked to the spatial aiz, but they do not exceed 5% of all cases.

In the Lithuanian corpus of 800 concordance lines, už + Gen. occurs 335 times (42%) and už + Acc. 465 times (58%). Apparently, abstract senses (replacement, retribution and remuneration, benefactive, and quality distance (comparative constructions)) are more frequent. Spatial contexts appear in 18% of all occurrences of už, and, like in Latvian, this sense is followed by a deeply entrenched sense of control (14%).

Most abstract senses (replacement, retribution and remuneration, benefactive, quality distance) are only found in Lithuanian. They are derived from sequential location. In Lithuanian, spatial distance gives rise to temporal distance and quality distance, not attested in Latvian. However, as can be seen from earlier accounts of Latvian prepositions, some of the senses were attested...
in Old Latvian (e.g., replacement, quality distance); they seem not to have survived until today.

The paper has been based on a parallel Lithuanian-Latvian and Latvian-Lithuanian corpus, which helped us consistently compare the data in both languages. However, not all senses were well attested in it due to limited data. Further expansion of the Latvian corpus would be very important.

Further research in the field could focus on tendencies of translation attempting to verify the extent of equivalence of the senses established in investigating language-specific datasets. Moreover, bearing in mind a very productive verbal prefixation in both Baltic languages and prefixes often formally coinciding and semantically overlapping with prepositions, further research into prefixes would be a challenging yet very interesting task.

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Abbreviations
1, 2, 3—first, second, third person; ACC—accusative; ADV—adverb; CVB—converb; DAT—dative; DEF—definite; DEM—demonstrative pronoun; DIALECT—dialectal; F (in text)—Figure, F (in glossing)—feminine; FUT—future; FOR—frame of reference; G—Ground; GEN—genitive; IE—Indo-European; ILL—illative; IMP—imperative; INF—infinitive; INSTR—instrumental; INT—interrogative pronoun; IRR—irrealis; LOC—locative; LT—Lithuanian; LV—Latvian; M—masculine; NA—nonagreement, neutral; NEG—negation; NOM—nominative; OCS—Old Church Slavonic; PA—active participle; PL—plural; PN—proper name; PP—passive participle; PREP—preposition; PRS—present; PST—past; RFL—reflexive marker (in verbs), reflexive pronoun; SG—singular; SLAV—Slavonic; VOC—vocative.

Data Sources
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