

## ON THE MEANING OF THE LITHUANIAN PREPOSITION *po*: A COGNITIVE PERSPECTIVE

### Lietuvių kalbos prielinksnio *po* reikšmė: kognityvinė perspektyva

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#### ABSTRACT

Studies of prepositional meaning are rather prolific in cognitive linguistics. However, the Lithuanian *po* ‘under’ still relies on intuitive explication rather than corpus-based evidence, reflecting the traditional line of investigation. Thus, the present paper focuses on: (1) identifying the primary sense of the preposition; (2) examining its extensions, or major use types, in physical and non-physical contexts, and (3) linking the established senses that differ in status in the form of a network. 1000 concordance lines with *po* from the fiction segment in the Corpus of Contemporary Lithuanian Language were examined. The Principled Polysemy Model (Tyler, Evans 2003) was used to distinguish between the senses and their contextual variants as well as for primary sense identification. Contextual clues played a significant role as well. The findings show that the primary sense, based on a proto-scene of the Figure beneath the Ground, gives rise to the other senses of the preposition. Some of them are concrete – differentiated by the types of F and G and their geometric and/or functional relationships, while the other extensions are abstract and motivated by metaphor. The paper also considers how the meaning of *po* interacts with the noun cases it governs.

**KEYWORDS:** Lithuanian preposition *po*, concrete and abstract senses, principled polysemy.

#### ANOTACIJA

Kognityvinėje kalbotyroje nemažai dėmesio skiriama fleksinių kalbų prielinksnių semantikai. Šiame straipsnyje keliami trys tikslai: (1) pagal figūros ir fono tipus bei jų geometrinius ir (arba) funkcinius santykius nustatyti *po* pirminę reikšmę, (2) išskirti kitas su fizine ir abstrakčia erdve susijusias prielinksnio reikšmes bei (3) ištirti jų motyvacinius ryšius. Išanalizuota 1000 konkordanso eilučių su prielinksniu iš grožinės literatūros registro Dabartinės lietuvių kalbos tekстыne. Tyrime taikytas principinės poliseminės analizės modelis (Tyler, Evans 2003), be to, atsižvelgta į kontekstinius požymius, susijusius su pastovia *po* vartosenos dažnio raiška. Nustatyta, kad iš pirminės reikšmės, siejamos su protoscena, kurioje figūra yra fono apačioje, galima išvesti kitas penkias prielinksnio reikšmes. Kai kurios iš jų yra konkrečios, o likusios – abstrakčios ir motyvuotos konceptualiųjų metaforų. Straipsnyje taip pat trumpai aptariama, kaip *po* reikšmė sąveikauja su linksniais, kuriuos prielinksnis valdo.

**ESMINIAI ŽODŽIAI:** lietuvių kalbos prielinksnis *po*, konkrečios ir abstrakčios reikšmės, principinė polisemija.

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## 1. INTRODUCTION

This paper aims to contribute to the cognitive line of research into prepositional semantics by focusing on the Lithuanian *po* ‘under’, which belongs to one of the most highly developed subsets prototypically involving reference to a vertical axis (see also vertical space in Dirven 1993: 74). Its inclusion in the investigation was not random but rather deliberate, motivated by the semantic richness and versatility of the preposition, resulting in multiple lines of scientific inquiry. For instance, Jonas Šukys (1998: 538) treats *po* in a more traditional manner, focusing on its spatial, temporal, and distributive uses in contemporary Lithuanian, with prescriptive notes concerning case government. Vytautas Ambrazas (2005: 444; 2006: 300), on the other hand, extends the analysis to sequential, gradual, motion, and more fine-grained senses of adjacency, providing historical and dialectal evidence as well. Lithuanian lexicographic sources, though differing in descriptive ambition, likewise play an important role in mapping the semantic range of *po*. For instance, the Dictionary of the Contemporary Lithuanian Language (DLKŽ<sub>se</sub> 2021, hereinafter) adopts a more economical approach, compressing the usage of the item into a set of senses (place, time, manner, distribution, etc.), each illustrated with a few representative examples. The Dictionary of the Lithuanian Language (LKŽ<sub>e</sub>, hereinafter), by contrast, offers extensive data from dialects, older texts, folklore, religious discourse, and idiomatic usage, thus prioritising comprehensiveness and empirical documentation. Even though these works provide valuable classificatory and descriptive insights, they treat the senses of *po* as discrete categories rather than as a radial network. In other words, the lexicographers seem to assume that the meaning of the preposition is too complex and unsystematic to be represented as an interrelated structure.

Cognitivists, who view prepositional senses as motivated extensions rather than isolated meanings, also experience challenges, particularly in their early studies. For instance, Inesa Šeškauskienė (2001), in her discussion of *po* and its Lithuanian near-synonym *žemiau*, along with their primary translation equivalents *under* and *below* in English, argues that general notions (e.g., “lower than”) in dictionaries and linguistic literature are often inaccurate or oversimplified. She, therefore, emphasises not only geometry but also functional relations, or the interplay between the two, in the semantic interpretation of the items; however, that approach applies only to their concrete senses. Other studies on primary translation equivalents of *po* and their synonyms reveal further difficulties. For instance, Barbara Wege (1991) discusses *below*, but finds it resistant to analysis in terms of necessary and sufficient conditions. John R. Taylor (1993) and René Dirven (1993), while examining the polysemy of a number of English prepositions, address *under* though their discussion of its abstract senses remains sketchy. Andrea Tyler and Vyvyan Evans (2003) investigate *under* and *below* according to the Principled Polysemy Model; however, their analysis occasionally lacks the depth of argumentation found in their treatment of other prepositions. Ieva Stasiūnaitė (2018; 2025) examines the motivated polysemy of *žemiau* and *below* using the same model, showing how their primary meaning gives rise to both concrete and abstract senses. Although the established senses only partially overlap with dictionary entries, a principled network-based approach seems to yield a more systematic account than the previous studies.

Other research on inflecting languages, while not involving *po*, has produced notable findings as well. For instance, Elżbieta Tabakowska (2010) investigates the Polish *za* (‘behind, beyond, for’), illustrating how the preposition interacts with prefixes and case forms. Its Russian and Lithuanian counterparts are examined by Daria Shakhova and A. Tyler (2010) and I. Šeškauskienė and Eglė Žilinskaitė-Šinkūnienė (2015), respectively, demonstrating how numerous senses form a motivated network around a central spatial sense. Other works focus on the cross-linguistic investigation of prepositions. For example, E. Žilinskaitė-Šinkūnienė et al. (2019a) report that containment and support are rendered differently in Latvian and Lithuanian, while E. Žilinskaitė-Šinkūnienė et al. (2019b) find

containment to be similar across Lithuanian, Latvian and Estonian; however, support displays greater affinity between Latvian and Estonian. E. Žilinskaitė-Šinkūnienė et al. (2020) highlight the importance of topological and geometric features in descriptions of spatial relations between two objects, revealing variation in terms for proximity, remoteness and distance in Lithuanian and Latvian (cf. Šķilters et al. 2020). I. Šeškauskienė and Rita Juknevičienė (2020) show that Lithuanian learners struggle with *in* and *on* because of non-congruent L1–L2 mappings shaped by semantic and inflectional features, supporting a motivated polysemy approach. E. Žilinskaitė-Šinkūnienė and I. Šeškauskienė (2021) compare the Latvian *aiz* and the Lithuanian *už* ‘behind, beyond’, demonstrating how their senses diverge despite a shared domain due to case marking and verbal prefixation, which highlights prepositional meaning as part of broader morphological-semantic networks.

However, despite these advances in cognitive-semantic research, no study has addressed the Lithuanian *po*, therefore, it is important to establish its semantic elements anew to provide an unambiguous description. The present analysis has three main objectives: (1) to identify the primary sense of the preposition, (2) to examine its extensions, or major use types, in physical and non-physical contexts, and (3) to demonstrate how the established senses that differ in status can be systematically linked in a single network.

## 2. DATA AND METHODOLOGY

This chapter describes data collection and the methodological framework against which the objectives of the present study have been set.

1000 utterances with *po* (out of 50,243) were randomly collected from the Corpus of the Contemporary Lithuanian Language (DLKT, hereinafter), excluding its idiomatic or otherwise restricted uses. However, only fiction was selected from a variety of segments as it was believed to represent a wide range of senses of the item studied (such a choice may also be justified with reference to previous research; see, for example, Šeškauskienė, Žilinskaitė-Šinkūnienė 2015). The utterances were glossed according to the Salos Glossing Rules adapted to the specifics of Baltic morphology (Nau, Arkadiev 2015).

In the present investigation, a preposition is considered to express a relation between two entities in the extra-linguistic world, e.g., *suolas po langu* ‘a bench *under* the window’. Figure (F) is an entity that is conceptually foregrounded, typically smaller and movable (i.e., a bench), while Ground (G) serves as a reference object with respect to which F is located and is therefore usually larger and immovable (i.e., a window) (Talmy 2000).

The qualitative method was used to identify and classify the distinct senses, or major use types, of *po*, with the results presented as relative frequencies, since it allowed a more in-depth examination of meaning. In line with this approach, during the annotation procedure, concordance lines were examined to determine whether F and G represented concrete objects, people, abstractions, or actions, processes. So, space here included, apart from physical, also several other spaces, which follows Gilles Fauconnier’s (2007) Mental Space Theory. In addition to these parameters, the analysis considered the spatial configuration of F and G, their idealised geometric shapes and/or internal structures, and their functional interaction. Thus, during the process of meaning construction, the preposition was assumed to prompt a plethora of conceptual operations grounded in encyclopaedic knowledge. At the same time, certain uses may be motivated by the speaker’s predisposition or communicative intention, allowing the same situation to be construed from various perspectives. Therefore, the degree of specificity and salience assigned to particular aspects of a scene was also considered in the sense-identification procedure, in line with Hans J. Schmid’s (2007) discussion of salience and related notions, such as Ronald Langacker’s (2000) focal adjustments and Leonard Talmy’s (2007) attention phenomena.

The qualitative method also implied a principled distinction between distinct senses and their contextual variants. For this purpose, a model of word meaning known as Principled Polysemy was adopted (Tyler, Evans 2003). Despite substantial criticism, it remains one of the few frameworks that offers a systematic and explicit methodology for identifying prepositional senses. First, for a sense to be distinct, or instantiated in memory, it must contain an additional element not apparent in any other senses. In other words, a distinct sense must involve either (A) a successive change in the set of concepts, such as (a) strong interdependencies between the preposition and the dynamic (kinetic) and/or geometric properties of G (e.g., static vs. dynamic, dimensional vs. adimensional), (b) corresponding features defining F, as required by the specific relation expressed, and/or (c) the nature of the relationship between the entities, whether topological (e.g., contact, proximity) or functional, or (B) projection onto a new domain (ibid.: 42–43; cf. Wesche 1986/1987; Lakoff 1987). While (B) spans multiple domains, (A) applies to changes within the same domain, as a locative concept may give rise to another locative concept, a temporal concept to another temporal concept, etc. In other words, transitions between concepts, or, following Ignacio Navarro i Ferrando (2006: 176), shifts, occur gradually. Finally, a distinct sense cannot be inferred from another sense or the context in which it occurs but must instead function as a stable, conventionalised unit (Tyler, Evans 2003: 42–43).

The Principled Polysemy Model also provides prompts to guide primary sense identification (ibid.: 47–50); however, in the present paper, they were adapted to reflect the actual semantic tendencies: (1) the physicality of F and G, which is related to such principles of cognitive linguistics as the experiential approach and embodiment, stating that the primary sense is usually more physical, closer to bodily experience (Johnson 1987; Lakoff 1987; Steen et al. 2010); (2) contextual clues associated with a reasonably stable frequency of occurrence (Sinha, Kuteva 1995); (3) the earliest attested sense, which falls in line with other cognitively-oriented works on inflecting languages (Pawelec 2009; Tabakowska 2010); (4) the use of the preposition in composite forms; (5) relations to other prepositions that form compositional, or contrast, sets, dividing various spatial dimensions, e.g., *po* vs. *virš*; (6) frequency of use in a network; however, it is not a determining factor due to the overwhelming frequency of occurrence of *po* when it designates temporal relations (cf. the relevance of the parameter for *žemiau* and *below* by Stasiūnaitė 2018; 2025). To specify the primary sense, A. Tyler and V. Evans (2003: 52) also introduce the concept of a proto-scene, or “an idealised mental representation across the recurring spatial scenes” associated with a preposition.

Finally, a radial category approach (Lakoff 1987), grounded in Rosch’s (1978) Prototype Theory, was used to account for the motivated polysemy of *po*. Within this framework, word meaning is structured around a central, prototypical sense, from which other less representative senses extend in a non-random way, forming a network rather than a list of unrelated senses. Semantic extensions are explained with reference to image-schema transformations and metaphor. Image-schema transformations are systematic modifications of a basic image schema, such as changes in scale, orientation, or perspective, which are grounded in recurring visual and kinaesthetic experiences. Metaphor, in turn, involves mapping structure from a more concrete source domain onto a more abstract target domain (Lakoff, Johnson 1980; Lakoff 1987; Kövecses 2010), allowing spatial experience to shape abstract senses. A preposition thus serves as “an excellent ‘laboratory’ for investigating the way in which spatial experience grounds many other kinds of non-spatial, non-physical concepts” (Tyler, Evans 2003: ix).

### 3. RESULTS

This chapter presents the key findings of the present investigation into the semantics of *po*. First, an overview of its senses, along with their relative frequencies in the DLKT dataset, is provided (see Table 1).

**Table 1.** Senses of *po* (relative frequencies)

| Senses \ Noun cases              | GEN   | ACC   | INS   | Total 3 |
|----------------------------------|-------|-------|-------|---------|
| 1. Primary sense                 | –     | –     | 6.2%  | 6.2%    |
| 2. Cover                         | –     | –     | 15.2% | 15.2%   |
| 3. Pervasion                     | –     | 10%   | –     | 10%     |
| Total 1: Concrete senses (1+2+3) | –     | 10%   | 21.4% | 31.4%   |
| 4. Temporal sequence             | 58.6% | –     | –     | 58.6%   |
| 5. Temporal consistency          | 3.8%  | –     | –     | 3.8%    |
| 6. Distributive quantity         | –     | 6.2%  | –     | 6.2%    |
| Total 2: Abstract senses (4+5+6) | 62.4% | 6.2%  | –     | 68.6%   |
| Grand total:<br>Total 1 + 2      | 62.4% | 16.2% | 21.4% | 100%    |

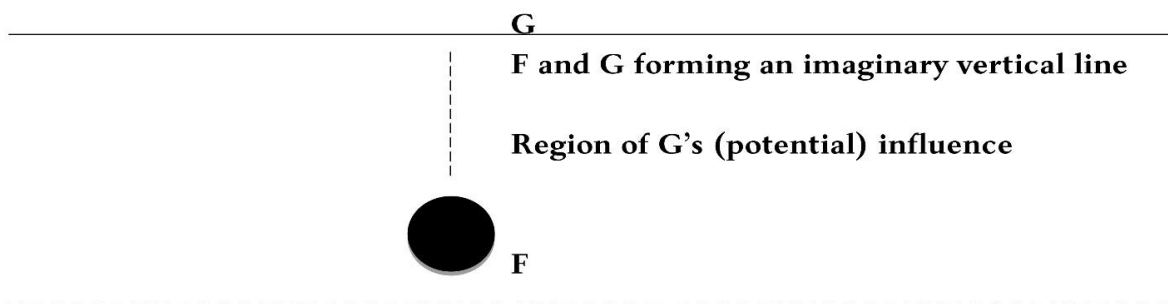
As shown above, *po* has six senses: three relating to physical space and three coding relations in non-physical space. As to the relationship between concrete and abstract senses (31.4%, Total 1 vs. 68.6%, Total 2), the preposition seems to prefer extensions away from physical space. Moreover, *po* governs three case-forms: GEN, ACC, and INS, the last being the most dominant with concrete senses (21.4%, Total 1). GEN, by contrast, is not used in physical contexts but appears in 62.4% of the data referring to abstract senses (Total 2). ACC is more frequent with *po* in physical than non-physical contexts (10% vs. 6.2%, Total 1 and Total 2, respectively), yielding a grand total of 16.2%. Moreover, in concrete senses, the preposition combines with a noun in a single case, as shown in Total 3: INS (primary sense: 6.2%, cover: 15.2%) or ACC (pervasion: 10%). In non-physical contexts, similar patterns emerge: GEN (temporal consistency: 3.8%), ACC (distributive quantity: 6.2%), and GEN (temporal sequence: 58.6%). Thus, temporal sequence is the most frequent sense in the compiled corpus.

The semantic peculiarities of *po*, as attested by the DLKT data, are discussed as follows. First, the primary sense is established, and its extensions in physical and non-physical contexts are examined. Next, motivated relationships between the senses, or major use types, that differ in status are emphasised as a network.

#### 3.1. Defining the Primary Sense

##### 3.1.1. Elements of the Proto-scene

Figure 1 offers an approximate image of the conceptual spatial relation between two entities, as coded by *po* and represented in the proto-scene.



**Figure 1.** Proto-scene for spatial scenes with *po*

The DLKT data attest to several features of the proto-scene associated with the item under study. First, the schematic construal encodes the relation in which F is located lower than G in Euclidean space along a vertical axis:

- (1) <...> *mediniai karveliai po lubų sija* <...>.

Wooden.NOM.PL.M doves.NOM.PL *po* ceiling.GEN.PL.F beam.INS.SG

‘<...> wooden doves under the ceiling beam <...>.’

In the example, *sija* ‘beam’, referred to by means of encyclopaedic knowledge, becomes G (a bold line in Figure 1), while *karveliai* ‘doves’, designating the boundary of vertical space with its bottom at the lower end, acts as F. The entities are vertically aligned in a sequential order (see the vertical broken line in Figure 1)<sup>1</sup>, so *po* entails not only geometric relations but also proximity, which is well reflected in its usage with the distance marker *tiesiai* ‘immediately’. In the following example, *akys* ‘eyes’ and *kakta* ‘forehead’ constitute part of a human face, so the absence of distance is more like the consequence of context<sup>2</sup>:

- (2) <...> *po kakta* <...> *akys* <...>.

Po forehead.INS.SG eye.NOM.PL

‘<...> eyes <...> under the forehead <...>.’

However, in (3) and (4), F and G are not only vertically aligned but also affect each other due to their adjacency, which is consistent with functional, or extra-geometric, accounts (Vandeloise 1991; 1994; Coventry et al. 2001). In other words, medicine enters the human body through an arm attached to a drip directly over it, while a computer code located beneath the photo gives information about it:

- (3) <...> [*ranka gulėjo*] *po lašeline su įsmeigta adata venoje* <...>.

<sup>1</sup> By way of comparison, in the case of *žemiau*, a seemingly close synonym of the preposition under study, F’s location below G acting as a geometric reference is not clearly specified. It is well illustrated by the following utterance, where the address (F) occupies more space than the stamp (G) but is interpreted as below only in relation to the stamp’s upper or lower boundary (Stasiūnaitė 2018; 2025):

*Žemiau pašto ženkle* <...> *adresas*.

Below post.GEN.SG address.NOM.SG

‘An address below a stamp’

<sup>2</sup> When *po* and *žemiau* can be used interchangeably, especially in bodily relations, they evoke different construal of the same spatial scene, cf.:

*Sukryžiuoju rankas žemiau krūtinės / po krūtine*.

Cross.PST.1SG arm.ACC.PL *žemiau* chest.GEN.SG / *po* chest.INS.SG

‘I crossed my arms below/under the chest.’

In the given example, *žemiau* reflects the spatial configuration of two discontinuous objects, or *subspaces*, when one subspace is conceptualised as being lower than the other (Šeškauskienė 2001; 2004). *Po*, on the other hand, is more contact-oriented as arms naturally meet the chest.

[arm.NOM.SG lie.PST.3SG] po drip.INS.SG with.PREP stab.PST.PP.INS.SG.F  
needle.INS.SG vein.LOC.SG

‘<...> [the arm] with a drip with a needle in the vein <...>.’

- (4) *Po fotografija prilipintas kompiuterinis kodas <...>.*

Po photograph.INS.SG glue.PST.PP.NOM.SG.M computer-NOM.SG.F  
code.NOM.SG

‘A computer code was attached under the photograph <...>.’

Thus, in the present analysis, the proto-scene underlying the spatial relation encoded by *po*, in which F is vertically lower than G, illustrates the least elaborate content of the preposition compared with its other senses. However, the contiguity or spatial proximity of F and G allows them to form a meaningful unit, suggesting a predisposition toward functional relations. This type of proto-scene will be treated as the most representative, or primary, sense of *po* + INS (6.2% in Table 1).

### 3.1.2. Types of F and G

In this section, types of F and G characteristic of the primary sense of *po* are discussed. First, various combinations of these entities are presented with relative frequencies, which are subsequently corroborated by the DLKL dataset.

**Table 2.** Types of F and G in the primary sense of *po* (relative frequencies)

| F \ G           | Human body | Concrete object | Total 2 |
|-----------------|------------|-----------------|---------|
| Human body      | 12.9%      | 27.4%           | 40.3%   |
| Concrete object | 33.9%      | 22.6%           | 56.5%   |
| Action/process  | —          | 3.2%            | 3.2%    |
| Total 1         | 46.8%      | 53.2%           | 100%    |

As seen from Table 2, an important criterion for primary sense identification, in addition to its least elaborate content, is the physical aspect of F and G. In 53.2% of the cases (see Total 1), G designates a concrete object, whereas in the remaining utterances (46.8%, Total 1), it is a person or human morphology. Although people functioning as G represent the second most frequent choice, their occurrence in spatial scenes highlights the role of bodily experience in structuring our understanding of the world (Gibbs 2006: 9; Rohrer 2007: 25–47), as attested by studies of conceptual metaphor (Lakoff, Johnson 1980; Lakoff 1987; Kövecses 2010).

However, not only concrete objects, including people, feature as G in the primary sense of *po*; the nature of F is also of utmost importance. Tangible inanimate entities, as its denotata, account for 56.5% of the data (Total 2), while people and human body parts constitute the second most frequent type (40.3%, Total 2). Actions and processes, the location of which is determined with reference to a concrete object, occur in as few as 3.2% of the utterances; however, no human body is selected as G in this case (Total 2).

More specific statistical tendencies are further illustrated with concordance lines from the DLKT. For instance, human bodily parts, typically functioning as G with *po* in the primary sense, are *kakta* ‘forehead’, *akys* ‘eyes’, *blakstienos* ‘eyelashes’, *krūtinė* ‘chest’, etc. The position of F is then taken by human morphology as well, e.g., *akys* ‘eyes’, *kumščiai* ‘fists’, *rankos* ‘arms’, etc. (12.9%, Table 2), sometimes even forming an integral part of G:

- (5) <...> *po jomis [akimis] atsirado apdribę pilki maišeliai.*

Po 3.INS.PL.F [eye.INS.PL] appear.PST.3PL sink.PST.PA.NOM.PL.M  
grey.NOM.PL.M bag.DIM-NOM.PL

‘<...> grey bags appeared under the sunken eyes.’

Inanimate entities, e.g., *akmenys* ‘stones’, *pamatas* ‘footing’, *laiptai* ‘staircase’, *kilimas* ‘carpet’ or *kelias* ‘road’, when used with human features, especially *kojos* ‘legs’, make the most frequent denotatum of G (33.9%, Table 2)<sup>3</sup>.

Other physical objects may also function as G, thereby determining the location of people or elements of human anatomy (27.4%, Table 2):

- (6) *Prie šilto tėvo šono prisiglaudęs. Po žvaigždžių lietumi.*

Near.PREP warm.GEN.SG.M father.GEN.SG side.GEN.SG  
snuggle.PST.PA.NOM.SG.M po star.GEN.PL rain.INS.SG

‘Snuggling up against the warm father. Under a shower of stars.’

Moreover, when a concrete object, e.g., *karnizas* ‘a cornice’, *atbraila* ‘a ledge’, etc., is used as G, a wide range of tangible entities function as F (22.6%, Table 2):

- (7) *Landa dešinėje, po atbraila <...>.*

Hole.NOM.SG right.LOC po ledge.INS.SG

‘The hole is on the right, under the ledge <...>.’

Concrete entities in the position of G may also appear with a dynamic type of F without affecting the interpretation of the primary sense (3.2%, Table 2):

- (8) <...> *raganius sugebėjo kilstelėti vielas ir spjovė po jomis.*

Magician.NOM.SG manage.PST.3SG lift.INF wire.ACC.PL and.CONJ  
spit.PST.3SG po 3PL.INS

‘<...> the magician uplifted the wires and spat under them.’

Thus, various types of F and G, arranged sequentially along a vertical line, appear in the proto-scene underlying the spatial relation encoded by *po*. However, the typicality of the sense is reinforced by the physical aspect of the entities involved. Further, it will be shown how less typical meanings, or use types, are related to this sense by transforming it in different ways.

### 3.2. Cover

The cover sense of *po* + INS is the most frequent in physical contexts, occurring in 15.2% of the DLKT data (Table 1). It preserves the spatial configuration of the entities from the primary sense, with F positioned below and directly under G along a vertical axis, emphasising either the endpoint of movement (9) or static relations (10):

- (9) <...> *paėmiau peilį ir sviedžiau po stalu.*

Take.PST.1SG knife.ACC.SG and.CONJ throw.PST.1SG po table.INS.SG

‘<...> I took a knife from the cupboard and threw it under the table.’

- (10) *Gulėdamas po antklode, Virginijus įsiklausė.*

Lie.CVB.SG.M po blanket.INS.SG Virginijus.NOM.SG listen.PST.3SG

‘Virginijus kept his ears open lying under the blanket.’

What distinguishes the semantic structure from the primary sense, however, is functional, or extra-geometric, interaction between the entities. In other words, G, conceptualised as a two-dimensional object, can cover F, which is smaller or at least of the same size and positioned directly beneath it. To do so, G must also be parallel to F, as illustrated in the following examples:

- (11) *Moteris sėdėjo po paveikslu.*

Woman.NON.SG sit.PRS.3SG po picture.INS.SG

<sup>3</sup> Such combinations are impossible with *žemiau*, which requires a more diffuse, contact-free arrangement of F relative to G, e.g.:

<...> \**žemiau kojų / po kojomis plikas cementas, o ne purus kilimas.*

\**Žemiau* foot.GEN.PL/ po foot.INS.PL bare.NOM.SG.M cement.NOM.SG but.CONJ not.NEG  
fluffy.NOM.SG.M carpet.NOM.SG

‘<...> bare cement, but not a fluffy carpet, \*below/under the feet.’



‘The woman was sitting under the picture.’

- (12) *Kažkas rausva gulėjo ant šaligatvio po mano batu.*

INDEF.who.NOM pink.NOM.SG.F lie.PST.3SG on.PREP pavement.GEN.SG po  
1SG.GEN shoe.INS.SG

‘Something pink was lying on the pavement under my shoe.’

(11) illustrates the primary sense of *po*: the picture, conceptualised as a two-dimensional object, hangs perpendicularly on the wall relative to the woman and thus does not cover her but merely indicates her location in close proximity. In (12), on the other hand, the preposition is used in the cover sense, as the shoe occupies a parallel, two-dimensional position directly above something pink, presumably smaller, thereby reducing its exposure or visibility.

In the following concordance lines, even though earth and water constitute continuous masses, only their two-dimensional horizontal top surfaces are metonymically involved in the process of conceptualisation:

- (13) <...> *gynėjai būstinę įsirengė olose giliai po žeme* <...>.

Defender.NOM.PL headquarter.ACC.SG RFL.set.PST.3PL cave.LOC.PL deep.ADV  
po ground.INS.SG

‘<...> defenders built headquarters in caves deep under the ground <...>.’

- (14) <...> *ji nugrimzdo po okeanu.*

3.NOM.SG.F sink.PST.3SG po ocean.INS.SG

‘<...> she sank under the ocean.’

As shown by the adverb *giliai* ‘deeply’ and the verb (*nu*)*grimzti* ‘sink’, contextual clues further support the interpretation of *po* as expressing a cover relation. Other verbs, e.g., *slypėti* ‘lurk’, *dingti* ‘disappear’, (*pa*)(*si*)*kišti* ‘put oneself/something under something’, (*pa*)*slėpti*(s) ‘hide somebody/something/oneself’, (*pa*)*laidoti* ‘bury’, etc., are likewise significant indicators, aligning with V. Ambrazas (2006: 298) who notes the same semantic contribution of the prefix *pa-*:

- (15) <...> *fotografija, tūnanti (...) po celofano plėvele mažame albumėlyje* <...>.

Photograph.NOM.SG lurk.PRS.PA.NOM.SG.F po cellophane.GEN.SG  
sheet.DIM.INS.SG small.LOC.SG.M album.DIM.LOC.SG

‘<...> a photograph lurking under a sheet of cellophane in a small album <...>.’

- (16) <...> *šaknys palindusios po pirkios pamatais.*

Root.NOM.PL bury.PRS.PA.NOM.PL.F po cottage.GEN.SG foundation.INS.PL

‘<...> the roots were buried under the foundation of the cottage.’

Adjectives, such as *neįskaitomas* ‘undecipherable’, or nouns, e.g., *užklotas* ‘bedcover’, *slėptuvė* ‘hiding place’, also frequently occur with *po* to convey covering:

- (17) <...> *stirti po tuo palaikiu užklotu* <...>.

Freeze.INF po DEM.INS.SG.M thin.INS.SG bedcover.INS.SG

‘<...> freeze under that thin bedcover <...>.’

- (18) <...> *šviesios akys neįskaitomos po ilgais kirpčiukais.*

Light.NOM.PL.F eye.NOM.PL NEG.decipherable.NOM.PL.F po long.INS.PL.M  
fringe.INS.PL

‘<...> light eyes were undecipherable under a long fringe hair.’

Thus, the successive configuration of the entities along a vertical line is preserved, but changes in the dimensionality and orientation of G cause F to occupy a position of reduced exposure. This modification reinforces an already latent functional interaction, suggesting that the cover sense of *po* + INS is derived from the primary sense.

### 3.3. Pervasion

*Po* + ACC manifests a pervasion sense which also pertains to physical space (10%, Table 1). What becomes salient in the semantic structure, however, is the distributed movement of F over G:

- (19) <...> *klajonės po Visatą joninėje laidojimo raketoje.*  
 Wandering.NOM.PL po space.ACC.SG ionic.LOC.SG mortuary.GEN.SG  
 spaceship.LOC.SG  
 ‘<...> wandering in space in an ionic mortuary spaceship.’
- (20) <...> *vyrui reikia po sietą pasivaikioti.*  
 Man.DAT.SG need.PRS.3SG po world.ACC.SG wander.INF  
 ‘<...> The man needs to wander around the world.’

As attested by the utterances above, *visata* ‘space’ and *svietas* ‘world’ are places within the boundaries of which the dispersed movement of F, either that of *raketa* ‘spaceship’ or *vyras* ‘man’, occurs. In (19), G acts as a three-dimensional entity, presupposing F’s movement either vertically or horizontally. In (20), G is a two-dimensional surface, enabling the other object to change its position only along a horizontal axis. This type of interaction between the entities does not contradict total affectedness, accounting for concrete uses of ACC such as direction or destination: “<...> [an entity] moving inside an accusative landmark does not follow a straight path <...> but moves around randomly <...>” (Luraghi 2009: 145–146, see also Janda 2002). This semantic peculiarity aligns with other research, which points to a dynamic element as the central feature of the case (Serra-Borneto’s 1995a as cited in Oakley 2007: 221; see also Ambrazas 2006: 297). The hypothesis of a kinetic aspect in the semantics of *po* is confirmed by rather prolific contextual clues, including nouns, such as *ekskursija* ‘trip /excursion’ and a wide range of verbs denoting various types of movement, for instance, *klajoti*, *klaidžioti*, *keliauti* ‘wander’, ‘roam’, *dykinėti*, *slankioti*, *trainiotis* ‘idle’, ‘loaf’, *blaškytis*, *daužytis*, *trankytis* ‘smash about’, ‘bump around’, *ieškoti*, *naršyti*, *raustis* ‘scavenge’, *landžioti*, *šniukštinėti* ‘snoop’, and many others.

However, F’s pervasion across an area may involve not only physical movement, but also a less concrete change in position. For instance, in the DLKT data, *žvilgsnis* ‘glance’, either implicitly or explicitly referred to, functions as F:

- (21) *Tėvai pasitikėjo ja, vieną išleisdami pasidairyti po pasaulį.*  
 Parent.NOM.PL RFL.trust.PST.3PL 3.INS.SG.F one.ACC.SG let.CVB.PL.M go.INF  
 and RFL.look.INF po world.ACC.SG  
 ‘Parents trusted her, letting her go and look around the world on her own.’
- (22) <...> *žvilgsniu klaidžiojo po atitirpusias iš po sniego darželio loveles <...>.*  
 Glance.INS.SG wander.PST.3SG po kinderkarten.DIM-GEN.SG pot.ACC.PL  
 ‘<...> (He/She) let his/her gaze wander over the kindergarten flower beds <...>.’

Thus, in the pervasion sense of *po* + ACC, the spatial configuration of the entities along vertical or horizontal axes becomes less significant. F also shifts in its characteristics, namely, towards iterative motion or distribution rather than localised positioning all over G, either as (a) a single object, e.g., *pasaulis* ‘world’ (21), or (b) a cluster of homogeneous objects, as in *darželio loveles* ‘kindergarten flower beds’ (22). Therefore, pervasion may be integrated into the semantic network via the sense of cover, which is related to the primary sense, as it denotes a location beneath something. However, even in the case of cover, expansion across space can be observed, as in *po okeanu* ‘under the ocean’, *giliai po žeme* ‘deep under the ground’, or *po pamatais* ‘under the foundations’, which highlights the connection between cover and the sense of pervasion.

### 3.4. Distributive Quantity

In addition to its concrete sense of pervasion, *po* + ACC also manifests distributive quantity, occurring in 6.2% of the DLKT data (Table 1). In this sense, the spatial arrangement of entities is replaced by distribution across multiple participants, objects, or actions, either in discrete quantities or repeated portions:

- (23) <...> *į tas tolimas ir pavoingas keliones siųsdavo po du vairuotojus <...>.*  
 To.PREP DEM.ACC.PL.F distant.ACC.PL.F and.CONJ dangerous.ACC.PL.F  
 trip.ACC.PL send.HAB.PST.3SG po two-NOM.PL driver.ACC.PL

‘<...> [they] would send two drivers to those distant and dangerous trips <...>.’

(24) <...> *sklypai gal po tūkstantį arų.*

Site.NOM.PL maybe.ADV po thousand.ACC.SG are.GEN.PL

‘<...> sites of maybe 1,000 ares.’

Grammar patterns with pronouns and adverbs are also attested:

(25) *Perskaičiau po kelis kartus.*

Read.PST.1SG po several.ACC.PL.M time.ACC.PL

‘I have read it several times.’

(26) *Antanas ėmė po truputėlį puikti.*

Anthony.NOM.SG start.PST.3SG po little.ADV peacock.INF

‘Anthony started to slowly become arrogant.’

As shown in the utterances above, G denotes a measurable unit or entity, such as drivers or land plots, while F represents a quantity distributed across each instance of G. Similarly, in the expressions *po kelis kartus* ‘several times’ or *po truputėlį* ‘little by little,’ *po* signals gradual or repeated occurrence, reflecting the gradable nature of distribution. Therefore, the sense is closely related to pervasion, whose most prominent feature is iterative movement or wide-spread across an area functioning as G (Luraghi 2009: 146; see also Janda 2002; cf. Ambrazas 2006: 297). The kinetic element, one of the key notions associated with ACC (Serra-Vorneto 1995a as cited in Oakley 2007: 221), does not contradict the semantic structure under study. Rather, it reflects a different type of functional interaction, in which the logic of spatial dispersion is mapped onto non-physical or scalar progression.

### 3.5. Temporal Sequence

*Po* has also developed other senses associated with non-physical space, with temporal sequence being the most frequent in the DLKT dataset (Table 1: 58.6% with GEN<sup>4</sup>). Therefore, predominance, a key criterion for primary sense identification, as suggested by Tyler and Evans (2003: 47–50), is not a determining factor in the compiled corpus.

In the utterances with the preposition denoting a temporal sequence, G refers to a time interval extending beyond the moment of speech, while F is the anticipated event marking its endpoint. The duration of the interval may be imprecise, but is typically short, and is expressed by phrases such as *po kurio / kiek laiko* ‘after some time’:

(27) <...> *koks avietynas! – po kurio laiko sušuko Milda.*

What.NOM.SG.M raspberry.cane.NOM.SG po which.GEN.SG.M time.GEN.SG exclaim.PST.3SG Milda.NOM.SG

‘<...> what raspberry-canes! – exclaimed Milda after some time.’

When temporal distance is relatively long, though still indeterminate, Lithuanians frequently use the adjective *ilgas* ‘long’ with *po*:

(28) <...> *po tokio ilgo laiko jaučiu, kad ji mane supranta.*

Po such.GEN.SG.M long.GEN.SG.M time.GEN.SG feel.PRS.1SG that.CONJ 3.NOM.SG.F 1.ACC.SG understand.PRS.3SG

<sup>4</sup> Although the preposition also occurs with DAT in this sense, such usage does not conform to codified standard language norms (Miliūnaitė 2022: 518). Rather, it represents fossilised constructions (Šukys 1998: 459) and was therefore excluded from the analysis of temporal meaning:

*Egonai, po viskam nušauk mane.*

Egonas.VOC.SG po everything.DAT.SG shoot.IMP.2SG 1.ACC.SG

‘Egonas, shoot me after everything is over.’

According to Zigmas Zinkevičius (1981: 192) and V. Ambrazas (2006: 295–296), in older texts, *po* functioned as a preverb and more frequently occurred with DAT; over time, however, this usage was replaced by GEN. This historical account seems to be more convincing than attempts to derive the ablative meaning of *po* + GEN from the corresponding prepositions in Greek (ἀπό) and Latin (*ab*), both meaning ‘away from’. Such interpretations, however, align with the cognitive approach treating GEN as a reference point (Berg-Olsen 2004).

‘<...> after such a long time I feel that she understands me.’

On the other hand, the DLKT data also attests to a number of cases where reference is made to a more definite interval between two events; hence *sekundė* ‘second’, *minutė* ‘minute’, *valanda* ‘hour’, *diena* ‘day’, *savaitė* ‘week’, *mėnuo* ‘month’, *metai* ‘year’ in the position of G:

(29) *Dabar jis taupo pinigų, ir po septynerių metų vėl juos pamatys.*

Now.ADV 3.NOM.SG.M save.PRS.3SG money.ACC.PL and.CONJ po  
seven.GEN.PL.DEF year.GEN.PL again.ADV 3.ACC.PL.M see.FUT.3SG  
‘He is saving money and will see them again after seven years.’

While *po* above indicates a temporal interval, in utterances like (30), it marks a specific chronological point (e.g., a year, season, or time of day), illustrating a more determinate temporal sequencing function:

(30) <...> *badmečiai* <...> *po 1800 m. užėdavo retai.*

Famine.NOM.PL po 1800 year.GEN.PL come.HAB.PST.3PL rare.ADV  
‘<...> famine <...> became rare after 1800.’

When referring to a chronological point, *po* is frequently accompanied by distance markers, such as *šiek tiek*, *gerokai*, *tuoj*, as in *šiek tiek po aštuonių* a little.ADV po eight.NUM.GEN ‘a little after eight/just after eight’, *gerokai po pusiaunakčio* well.ADV po midnight.GEN.SG ‘well after midnight’, *tuoj po vidurnakčio* immediately.ADV po midnight.GEN.SG ‘immediately after midnight’.

A precise moment in time may be indicated not only by units of measurement but also by specific events expressed as nouns. In such cases, the preposition precedes nouns denoting meal times (e.g., *priešpiečiai* ‘lunch’, *kava* ‘coffee’), natural phenomena (e.g., *saulėlydis* ‘sunset’, *šlapdriba* ‘sleet’), disasters (e.g., *skerdynės* ‘slaughter’, *karas* ‘war’), conditions of the body and mind (e.g., *miegas* ‘sleep’, *mirtis* ‘death’), etc.<sup>5</sup>:

(31) <...> *po saulėlydžio mūša sustiprėjo* <...>.

Po sunset.GEN.SG surge.NOM.SG.F intensify.PST.3SG  
‘<...> after sunset, the wave surge intensified <...>.’

However, not only nouns but also pronouns can serve as temporal anchors. In such cases, both *už* (‘behind’), referring to static, or spatial interpretations, and *po* (‘after’), linked to mobile, or temporal situations, are equally allowed. For instance, people may ask each other in a queue: *Kas už / po jūsų?* ‘Who is behind / after you?’ (Šeškauskienė, Žilinskaitė-Šinkūnienė 2015: 19–20).

When *po* combines with GEN, the processing of temporal scenes may rely on a horizontal axis, with a mental timeline running from left (past) to right (future), an orientation likely influenced by writing direction. However, temporal relations are more frequently conceptualised along a sagittal (front-back) axis, reflecting the human body’s front-back orientation (Torralbo et al. 2006). Anterior is expressed by *prieš* + ACC, which covers spatial anterior (“in front of”), temporal anterior (“before”) and the distance-past meaning (“ago”). Posterior, in contrast, is encoded differently: *už* + GEN refers not only to spatial posterior (“behind”) but also to temporal posterior, indicating sequential events. This pattern aligns with cross-linguistic tendencies, where “front” or “in front of” corresponds to “before,” and “back” or “behind” is associated with “after” (Haspelmath 1997: 56ff). *Po* + GEN may likewise convey temporal posterior, particularly in contexts where one event follows another (Šeškauskienė, Žilinskaitė-Šinkūnienė 2015: 24–25), cf.:

(32) *Maždaug už pusvalandžio sustojo mikriukas.*

<sup>5</sup> Interestingly, in the corpus, even specific locations, usually denoting educational institutions, may function as G. However, J. Šukys (1998: 462–463) regards such constructions as literal translations and suggests reformulating them, e.g., *baigęs gimnaziją*:

*Ką veiksi po gimnazijos?*

What.ACC do.FUT.2SG po gymnasium.GEN.SG

‘What are you planning after gymnasium?’

Approximate.ADV už half-hour.GEN.SG stop.PST.3SG bus.DIM.NOM.SG  
 ‘The minibus stopped after approximately half an hour.’

(33) *Nei po pusvalandžio, nei po valandos Povilas negrižo.*

Neither.CONJ po half-hour.GEN.SG nor.CONJ po hour.GEN.SG Povilas.NOM.SG  
 NEG.return.PST.3SG

‘Povilas came back neither after half an hour nor after an hour.’

Both *už* and *po* mean ‘after’ in the utterances above; however, *už* competes with *po*, which is more prominent in contemporary Lithuanian. Interestingly, in certain derivatives, such as *už-vakar* ‘the day before yesterday’, *už-pernai* ‘the year before last year’, or forward, as in *už-poryt* ‘the day after tomorrow’, temporal sequence is expressed by *už*, the less frequent element (ibid.: 25). Dialectal variation may also influence the choice of one preposition over the other, e.g., Samogitians employ *už* to express future events, while *po* appears with past-tense forms, cf. *jis grįš už metų* 3.NOM.SG.M return.FUT.3SG už year.GEN.PL ‘he will return after a year’ vs. *jis grįžo po metų* 3.NOM.SG.M return.PST.3SG po year.GEN.PL ‘he returned after a year’. In contrast, the speakers of Eastern Higher Lithuania use *už* in both contexts: *jis grįžo / grįš už metų* 3.NOM.SG return.PST.3SG/return.FUT.3SG už year.GEN.PL (Markevičius 2014: 78).

The temporal sequence sense of *po* + GEN can be interpreted through the deeply entrenched metaphor TIME IS SPACE (Lakoff, Johnson 1980, when the spatial arrangement of entities gives rise to the sequential location of events, thereby invoking the ontological metaphor EVENT IS OBJECT. More specifically, PAST IS BEHIND EGO underlies expressions in which the past is conceived as behind rather than below the ego, while FUTURE IS IN FRONT OF EGO motivates the construal of the future as positioned in front of rather than above the ego.

By way of contrast, time may also be conceptualised vertically, as attested in some Asian languages (Boroditsky et al. 2011; Athanasopoulos 2017; Hong et al. 2017). In Russian, however, vertical temporal mapping takes a more specific form. For instance, FUTURE EVENTS ARE UP is further refined into REMOTENESS IS UP, whereas PROXIMITY IS DOWN captures how approaching events are mentally “lowered” toward the present moment. Such construal is evident in expressions like *под воскресенье* ‘right before Sunday’ (lit. ‘under Sunday’) and *под праздник* ‘just before the feast’ (lit. ‘under feast’), with downward spatial orientation encoding temporal imminence (Luodonpää-Manni, Viimaranta 2010: 80–82). In the temporal-sequence sense, as manifested by *po* in Lithuanian, however, only the successive ordering of events along the sagittal axis, analogous to their vertical arrangement in the primary sense, is retained. The use of the preposition with GEN is also semantically motivated as the case denotes a reference point not only in concrete but also in abstract contexts: “(...) [an entity] moving inside a genitive landmark moves along a clearly defined path, and can always be tracked down” (Luraghi 2009: 146, see also Berg-Olsen 2004; cf. Langacker 2000).

### 3.6. Temporal Consistency

Another temporal situation that entails the usage of *po* + GEN refers to a consistent sequence of events, as opposed to *post hoc, ergo propter hoc*, which denotes causal relations (3.8%, Table 1):

(34) *Stikliukas po stikliuko ir įsivyravo vakarykštė atmosfera.*

Glass.DIM.NOM.SG po glass.DIM.GEN.SG and.CONJ RFL.settle.PST.3SG day-old.NOM.SG.F atmosphere.NOM.SG

‘Glass by glass, and the day-old atmosphere settled in.’

As shown in the utterance above, a preceding event (F) becomes a reference point (G) for another event, which in turn serves as F for the next, etc. Interestingly, although glasses are concrete objects, the focus is on temporal development along a timeline rather than on the configuration of the entities in physical space.

Such temporal expressions as *sprindis po sprindžio* ‘span after span’ and *žingsnis po žingsnio* ‘step by step’ to measure spatial separation between the entities can also be used with *po* in the temporal consistency sense. However, the focus is again on the progression of some action rather than on the spatial alignment of a person’s feet on the ground:

(35) *Miško keliuku žingsnis po žingsnio pasukau į aną tolimą rugsėjo naktį <...>.*

Forest.GEN.SG path.DIM.INS.SG step.NOM.SG po step.GEN.SG turn.PST.1SG to.PREP DEM.ACC.SG.F distant.ACC.SG.F September.GEN.SG night.ACC.SG

‘Taking a small path in the forest, step by step, I turned into that distant September night <...>.’

Units of measuring time may also fill in the position of F and G in the temporal consistency sense:

(36) *<...> vadovauti šimtams žmonių, diena po dienos, savaitė po savaitės, mėnuo po mėnesio <...>.*

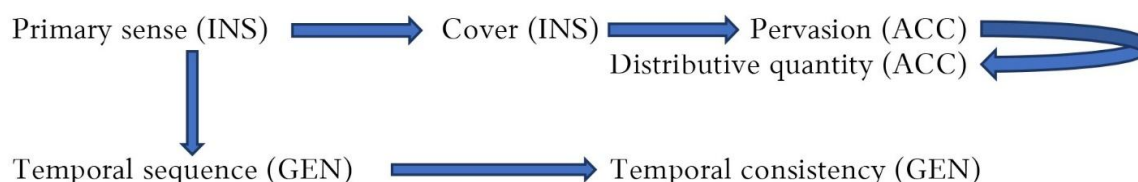
Supervise.INF hundred.DAT.PL person.GEN.PL day.NOM.SG po day.GEN.SG week.NOM.SG po week.GEN.SG month.NOM.SG po month.GEN.SG

‘<...> supervise hundreds of people, day after day, week after week, month after month <...>.’

Thus, the temporal consistency sense of *po* + GEN, like that of a temporal sequence, can be interpreted through the metaphor TIME IS SPACE, when the linear arrangement of entities in space gives rise to the sequential positioning of events. The use of the preposition with the case is likewise motivated, with G serving as a reference point relative to which another event (F) is situated in time (Luraghi 2009: 146; see also Berg-Olsen 2004; cf. Langacker 2000). This sense can therefore be seen as an extension of the temporal sequence, in which the component of sequential location becomes backgrounded, while repeated anchoring across successive intervals foregrounds the persistence of action.

### 3.7. Semantic Network

The semantic network of *po* comprises six senses, as attested by its usage in the DLKT with GEN, ACC, and INS.



**Figure 2.** Network of the senses of *po* + GEN, ACC, and INS

As shown by the network above, the primary sense of *po* + INS, which implies purely geometric content, with F directly underneath G and thereby forming a meaningful unit with it, is used to categorise new types of experience. First, it gives rise to cover (*po* + INS), which results from a shift in the dimensions and orientation of G, i.e., from an entity metonymically reduced to a line in the primary sense to a relatively large two-dimensional object parallel to a smaller F. In the sense of pervasion (*po* + ACC), instead of being positioned beneath G, F is required to move randomly across the reference entity conceptualised as either a single or a multiplex object. This sense may be integrated into the semantic network through cover, in which spreading across space can also be observed. Pervasion, in turn, gives rise to the sense of distributive quantity (*po* + ACC), which likewise involves a dynamic aspect but in non-physical space.

As for the temporal senses, which form a new branch of nodes in the network, their emergence involves not only a shift in the characteristics of F and G but also a change in the axis from vertical to front-back. The sense of a temporal sequence (*po* + GEN) stems from the primary sense, retaining the succession of the entities in the proto-scene, and can be interpreted through the metaphor TIME IS SPACE. Temporal consistency (*po* + GEN) further derives from the temporal sequence, backgrounding succession in favour of intermittent recurrence.

Thus, the established distinct senses of the preposition are in fact directly or indirectly derived from the primary sense, forming an interconnected semantic network that reflects actual patterns of linguistic usage. However, the analysis of highly idiomatic and restricted uses, which are currently excluded from the study, may provide other links, and diachronic developments are likely to be relevant as well.

#### 4. CONCLUSIONS

The goal of the paper was to investigate the semantic micro-structure of the Lithuanian *po* as reflected in the DLKT. This section provides a brief overview of the established tendencies in the development of prepositional meaning.

(1) *Po* has six major senses associated with both physical and non-physical space: (1) the primary sense, (2) cover, and (3) pervasion, all of which refer to spatial relations, and (4) temporal sequence, (5) temporal consistency, and (6) distributive quantity, which deal with non-spatial relations. These highly generalised senses complement rather than conflict with a long catalogue of meanings found in dictionary entries and traditional linguistic descriptions since higher- and lower-level representations may co-exist. As to the frequency of instantiation, *po* seems to favour non-physical space in the compiled corpus.

(2) Different types of F and G, such as people, inanimate concrete objects, abstract entities, processes, actions or states, and their combinations, proved particularly useful in identifying the primary sense of the preposition. It has been found to emphasise physical rather than non-physical properties of the entities, in line with the experiential approach and the principle of embodiment. The geometric configuration of F and G was also crucial for primary sense identification. In contrast, other senses, such as cover or pervasion, entail not only geometric but also qualitative space associated with functional relations. However, for these less central senses, the analysis did not systematically consider specific F–G combinations; instead, only general types of the entities were examined. This approach allowed to capture essential distinctions without overextending the discussion into less diagnostic patterns.

(3) The senses of *po*, associated with both physical and non-physical space, form a semantic network organised by various direct or indirect relationships. Image-schema transformations and metaphor were instrumental in accounting for meaning extension, during which some elements become backgrounded in favour of others more relevant to the spatial scene, or manifest an increase in the level of abstraction. The investigation also tentatively attempts to integrate the role of a noun case into the semantic structure of the Lithuanian preposition. However, analysing idiomatic or restricted usage at a later stage could help identify any other missing links. Historical data may also provide valuable insights, but exploring these possibilities is left for future research. Likewise, a tempting undertaking would be to conduct psycholinguistic experiments examining how different speakers perceive the semantic peculiarities of *po*, as any conclusive statements about the meaning of the preposition should be treated as hypotheses about individual conceptualisations rather than generalisations about the entire language community.

#### DATA SOURCES

DLKT: *Dabartinės lietuvių kalbos tekstynas* [Corpus of the Contemporary Lithuanian Language]. Internet Access: <http://tekstynas.vdu.lt/tekstynas/>.

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