

RODOLFO BASILE

Inventive-locational
constructions in Finnish:
A mixed methods approach



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Press

University of Tartu, Institute of Estonian and General Linguistics

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My first thoughts go to my high school English teacher, Claudia Tabiano. Without her support and encouragement to pursue a degree in languages, I would have probably ended up being an unhappy engineer. When I started my BA at the University of Naples “L’Orientale” in 2011, I had chosen to study English and Mandarin before realizing there was a Finnish language course. I thought it would be a fun idea to take it as an elective course, since I had already been learning a few Finnish words and expressions. I certainly hadn’t imagined that this language would become a big part of my career and life. It was just perfect to study Finnish in Naples, where our teachers, Pirjo Nummenaho and Riikka Lindholm, created the friendliest and most comfortable environment our small class (only six people on the busy days!) could ever hope for. As a result, Finnish grammar was the only thing I diligently studied every day. I owe many thanks to both: to Pirjo for guiding me as my supervisor, and to Riikka not only for motivating me to speak Finnish and sending me to Finland to attend summer courses, but also for being a great friend. Even if Riikka is no longer with us, her memory will live on in her students’ hearts. Among these students, I would like to thank Marco Staiano, Marco Liazza, and Ennio Sapatello for making every moment precious during my MA studies.

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Tartu, 10.04.2024
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LIST OF PUBLICATIONS

This doctoral dissertation consists of the following original research articles, here referred to by their abbreviations:

AREA (Article I): Basile, Rodolfo (Accepted for publication). Invenitive-locational constructions in the languages of Europe.

QUANTI (Article II): Basile, Rodolfo, and Ilmari Ivaska. 2021. Löytyä-verbin konstruktioiden yhteydessä esiintyvä subjektin sijanvaihtelu. *Eesti ja soome-ugri keeleteaduse ajakiri. Journal of Estonian and Finno-Ugric Linguistics*, 12(1), 11–39.

WEB (Article III): Basile, Rodolfo (Accepted for publication). ‘I am also found on Facebook’: Locuphoric ‘find’-based strategies in Finnish internet corpora. In Glaser, Sleeman, Strobel & Tamm (eds.). Partitive constructions and partitive elements within and across language borders in Europe Vol. – num. 5 (prov.) *Linguaggio e Variazione. Variation in Language*. Edizioni Ca’Foscari, Venice University Press.

PARTEX (Article IV): Basile, Rodolfo (Accepted for publication). The Finnish Existential Partitive Construction Analyzed: Comparing Two Applications of Collostructional Analysis. In Leuschner, Barðdal, Delaby & Vajnovszki (eds.). *How to Do Things with Corpora*. Berlin/Heidelberg: J.B. Metzler. (Linguistik in Empirie und Theorie/Empirical and Theoretical Linguistics).

Author’s contribution to the publications

In QUANTI, Basile manually coded the data, which was then quantitatively modeled by Ivaska. The qualitative analysis of the data and the main insights of the article are by Basile.

As for the rest of the articles, Basile is the sole author.

NB: The article AREA might undergo changes before the final version appears.

LIST OF GLOSSING ABBREVIATIONS

1	first person	GROUP	group
2	second person	ILL	illative
3	third person	INE	inessive
ABL	ablative	INF	infinitive
ADE	adessive	LOC	locative
ALL	allative	MM	middle marker
CONJ	conjunction	NOM	nominative
COP	copula	PART	partitive
DEF	definite	PL	plural
DET	determiner	PRS	present
ELA	elative	PRT	preteritum
EMPH	emphatic	PX	personal suffix
ENCL	enclitic	RELP	relative pronoun
EXV	existive	SG	singular
GEN	genitive	USER	username

INTRODUCTION

In natural languages, there are several ways to indicate the location of something or someone in space. In English, saying *the band is in town* is different than saying *there is a band in town*. In the first case, the band in question is a band we already know something about, one that is presumably familiar to us speaking as well as to those who are listening. This familiarity of the band is expressed using the definite article *the* and the sentence-initial position of the word *band*, which tells us this piece of information is salient, and that this word is the subject of the sentence. In the second case, the band does not represent a familiar piece of information: It is introduced by the indefinite article *a* and does not qualify as a subject in the same way. What we have here is a functional distinction: The function of the first sentence is that of telling us something about a certain band, while the second sentence has instead the function of telling us something about a certain town by placing a band in it. There are, however, several formal ways of expressing these functional differences. One could for example say that *the coffee has been sitting on the stove the whole morning*, and in this way say something about the coffee, which now *sits* instead of just *is* on the stove. The function of this sentence remains that of locating the coffee in a certain space, but this is conveyed in a formally distinct way, using a verb whose meaning is a little more complex than the verb ‘to be’. Yet another way of placing things in space is by using the verb ‘to find’, as in, *life jackets are found under your seats*. What this last sentence tells us is that our life jackets are located at all times in a certain place, and the fact that we can find them there in case our plane lands on the water is only a secondary piece of information. The present work deals precisely with these kinds of grammatical constructions where the existence or location of something or someone is expressed by *finding* it. This thesis provides both a theoretical framework and an analysis within the context of European languages, giving a central role to Finnish. As these locational constructions are based on the verb ‘to find’, I call them *inventive-locational constructions*, from the Latin verb *invenire* ‘to find’.

This doctoral dissertation is a contribution to several subfields of linguistic research, including language typology, corpus linguistics, and Fennistics, which here is intended as the study and analysis of Finnish (and, in a broader sense, of other Finnic languages, which this dissertation does not, however, take into account). This work is based on four publications brought together by their common purpose to understand, using mixed methods, the locational constructions I call *inventive-locational constructions*. Such constructions are common in European language, and in Finnish they are represented by the verb *löytyä* ‘to be found’. It will be shown that not only the use of this Finnish verb is widespread in different kinds of usage contexts, but that it also behaves differently compared to its counterparts in other European languages. One of the main differences with other languages consists of its use in existential constructions: The verb *löytyä* ‘to be found’ is, as the data show, the most common existential verb after *olla* ‘to

be'. The four publications introduce inventive-locational constructions from a cross-linguistic point of view, describing their use in European languages (AREA), and analyze inventive-locational constructions more specifically in Finnish (QUANTI; WEB), but also situate inventive-locational constructions within the framework of the various verbs used with the Finnish Existential Partitive construction, offering a language-specific outlook (PARTEX). This dissertation aims at answering the following research questions:

1. What are inventive-locational constructions and how do they differ from other locational constructions? (Q1)
2. Why are inventive-locational constructions so common in Finnish and what are their main features? (Q2)
3. What are the main features of the marginal locuphoric¹ inventive strategies used in Finnish? (Q3)
4. What are the most typically used existential verbs in Finnish? (Q4)

Q1. Inventive-locational constructions are presented and discussed in AREA. This article defines inventive-locational constructions as construction-strategies, which are specific formal configurations that functionally express a locational meaning. The article also provides an areal outlook on inventive-locational constructions in several European languages. Inventive-locational constructions are presented as recognizable constructions that can be used as a comparative concept for cross-linguistic surveys, that is, to investigate languages outside the scope of AREA.

Q2. There may be diachronic reasons why inventive constructions have become so common in Finnish, but the answer to Q2 is found in the synchronic perspective adopted in QUANTI, WEB, and PARTEX. The valuable insight offered by these three papers lies in the quantitative methods that, applied to linguistic corpus data, help us to understand the prominence and diffusion of inventive-locational constructions in Finnish. The articles also contribute to the literature about existential constructions in Finnish, which have historically been a complex topic, still an object of discussion for many linguists.

Q3. In QUANTI, we found that inventive constructions are largely used in Finnish. The verb *löytyä*, when indexed for third persons (allophoric forms), is used as a locational copula. Unlike in other languages of Europe, however, it is not productive when indexed for first and second persons (locuphoric forms). In fact, this strategy is rather marginal, as shown by QUANTI. In WEB, I look at this marginal locuphoric strategy, and describe what appears to be specialized use in internet contexts.

¹ The term locuphoric refers to first and second person indexes, while allophoric refers to third person indexes (Haspelmath 2013).

Q4. To understand why inventive constructions are so common in Finnish, we should compare their use with other lexical verbs used in Finnish Locational constructions, especially Existential constructions (also called *presentative* or *presentational*). The answer to Q4 is achieved again through quantitative methods in PARTEX, which proposes a novel way of sampling linguistic data, which are then processed using the method known as *collostructional analysis*.

This dissertation consists of the present introductory chapter and the four original publications described above. The introductory chapter is further divided into the sections described below.

Section 1 introduces the theoretical framework used. The present dissertation is typologically oriented and defines a novel category of locational construction-strategies. For this reason, the main trends in the typological literature are laid out, and concepts like *locational construction*, *locative construction*, and *existential construction* will be crucial for understanding the contribution of this work. Section 1 also relies on the centrality of *comparative concepts*, useful tools that explain why it is relevant to talk about linguistic constructions at all. Comparative concepts are then contrasted with language-specific categories, like the Finnish Existential construction, which will also be introduced as part of the theoretical background.

Section 2 presents the data and methods used in this dissertation. The data consist of either language material elicited from native speakers and other experts, or corpus-based language material. The latter consists of instances of the construction in question extracted from a variety of corpora such as the Corpora of Uralic Volga-Kama Languages or the Suomi24 corpora for Finnish. The methods used are described in the second part of the section and consist of mixed methods, i.e., both qualitative and quantitative methods. The qualitative methods are commonly associated with typological research: eliciting language material from native speakers, glossing it and drawing crosslinguistic conclusions. The quantitative methods include statistical analyses like logistic regression, the measure of dispersion of language phenomena in corpora, and collostructional analysis. Particular attention will be given to the novel proportional method proposed for sampling language material from corpora, a method based on what I call Expected Sample size (ES).

The aim of Section 3 is twofold. First, it sums up the results reported in the articles, presenting them separately. Second, it discusses the contact points between the articles, and answers the four research questions proposed above.

The concluding Section 4 sketches out solutions to provide future research with tools to investigate inventive-locational constructions and the like. Such constructions are presented as a comparative concept from a cross-linguistic point of view. This section also generalizes the results obtained and the importance they offer for the study of grammar in general and of Finnish in particular, giving special attention to the methodological innovations employed within this work.

1 BACKGROUND

This section provides a theoretical background for the articles presented below. Section 1.1 introduces linguistic typology and a general functionalist approach, also drawing from theoretical frameworks such as Cognitive Grammar and Construction Grammar, both functionally oriented. Section 1.2 presents inenitive-locational constructions as identifiable construction-strategies. Section 1.3 reviews earlier research on nonverbal predication and copula clauses from a functional point of view. It also goes into more detail by presenting the main functional differences between predlocative² constructions and existential constructions, both contained under the more generic type of constructions called locational constructions. Section 1.4 relates predlocative and existential constructions to subjecthood and partitivity in Finnish.

1.1 Linguistic typology and functionalist approaches to grammar

Early cross-linguistic comparisons date back to ancient times, but it is only during the past century that the study and classification of natural languages has been made systematic. As reported by Song (2010), after the introduction of the term *Typologie* by Georg von der Gabelentz in the 19th century, the field was revitalized by Greenberg (1963). Since then, linguistic typology has been growing in popularity and now has an established tradition that unites scholars from all over the world (Croft 2003; Dryer 1992). Linguistic typology has the main aim of comparing the languages of the world in order to draw cross-linguistic conclusions and to classify languages (Comrie 1988). These comparisons and classifications can be made from the point of view of morphosyntax, phonology, semantics, or, for example, word formation, but recently the scope of cross-linguistic inquiry has broadened so that it now also includes, e.g., pragmatic typology, meaning the typology of languages in use (see De Vries 2008; Rossi 2020). It can be argued that linguistic typology wants to look at the differences between languages, rather than their similarities, hence it is the study of cross-linguistic variation (Daniel 2010). Typological methodologies can also be incorporated into two subfields that instead have at their core the study of similarities between languages: contact linguistics and historical linguistics. These two disciplines aim at finding a satisfactory explanation as to why certain phenomena have developed in the same way within a certain geographical area or throughout history and can adopt both synchronic and diachronic approaches.

When talking about the geographical distribution of a linguistic phenomenon limited to a specific area, we can also talk about areal typology (as done by, e.g.,

² Here, Haspelmath's (2022) term is used. A more common variant of this same concept is *locative construction*.

Aikhenvald & Dixon 1998; Arkadiev 2014; Dahl & Koptjevskaja-Tamm 2001; Idiatov 2018). In areal-typological studies, the aim is to investigate a circumscribed geographical area that may contain genetically unrelated languages, to see whether these languages share one or more grammatical, prosodic, or pragmatic features, usually through synchronic comparisons. The generalizations over those features can usually be explained through language contact hypotheses and open a door to further diachronic investigations. Areal-typological investigations often also result in finding significant differences between languages spoken in a particular area, even between languages that are genetically related. The study at hand draws from areal-typological methods to study a specific construction within the languages of Europe and formulate a new comparative concept (*invenitive-locational construction*, AREA), that can be used in further cross-linguistic, typologically-oriented investigations of larger samples of languages.

A comparative concept is a concept used for cross-linguistic comparison, created *ad hoc* by linguists, and fundamentally different from language-specific descriptive categories. A comparative concept does not have to be exclusively semantic, but it usually contains a semantic component (Haspelmath 2010). Because of the centrality of semantics, and hence of meaning, working with comparative concepts is part of the functionalist approach, according to which language is seen from the point of view of the communicative and meaning-oriented function it conveys, instead of under a merely formal or compositional light. Examples of functionally defined comparative concepts are ‘partitive’ or ‘imperfect tense’, which do not consider the whole range of properties that language-specific Partitive³ cases or Imperfect tenses may have. For example, the Finnish Partitive case not only has the function of indicating the proportional relation of a subset to a superset (Seržant 2021), which can be considered the main function of the comparative concept named ‘partitive’, but it can also indicate aspect, a temporal function, a partial object, or a discourse-new syntactic argument (QUANTI). Similarly, the Finnish Imperfect tense not only expresses an aspectually imperfective function (like the Italian Imperfect tense does), but also an aspectually perfective function (like the English Simple Past). The functionalist approach is distinct from, e.g., the approach adopted by generative linguists, who often assume the universality of what are language-specific categories, adopting innatist views that include the formulation of a universal grammar possessed by every speaker (Chomsky 1965; Dąbrowska 2015).

Despite the centrality of a new comparative concept, language-specific terms are not completely irrelevant to the dissertation at hand, since QUANTI and PARTEX investigate the Finnish Existential construction based on the Fennistic tradition (Hakanen 1972; VISK; Miestamo 2005; Larjavaara 2019). For this reason, this work also draws from functionally oriented frameworks that complement its general typological aims. One of these approaches is Cognitive Grammar, which assumes, in contrast with generative theory, that “language is neither self-contained

³ Following Haspelmath (2010), among others, capitalized initials are used for language-specific categories, while non-capitalized initials for comparative concepts.

nor describable without essential reference to cognitive processing” (Langacker 2008: 29). In cognitive approaches, meaning is central and directly connected to the human sensorial and spatial experience of the world (Langacker 1987; Talmy 2000). Cognitive approaches intertwine with the performative nature of the speech act as a communicative tool, which argues in favor of a usage-based language theory (Diessel 2017). According to usage-based linguistics, the cognitive and interactive dimensions both participate in the production of language, going against the structuralist and generativist views that consider the study of a language system and the study of language use to be two separate endeavors. In general, this dissertation adheres to the view that meaning should be studied from a holistic perspective, a view that is also in line with another usage-based, functionalist approach to language, Construction Grammar (Goldberg 1995; 2006). This approach combines pragmatics and semantics and justifies linguistic structures, also called constructions, as having a meaning that is not the mere sum of its components. In other words, all the phonological, morphological, syntactic, lexical, and pragmatic parameters of a construction come equally into play in defining it, and changing one of these parameters can potentially lead to a completely different interpretation of the construction. Within this framework, constructions can be not only larger linguistic structures (also called *clause constructions*, see, e.g., Haspelmath 2022), but also smaller linguistic units like phrases, morphemes, or phonemes. Construction Grammar is used as part of the theoretical framework of QUANTI and PARTEX.

1.2 Invenitive-locational constructions as identifiable construction-strategies

The main goal of this dissertation is to define a class of linguistic clause constructions called *invenitive-locational constructions* (AREA). These structures are formally defined but fall within the functionally defined comparative concept of locational constructions. We have to keep in mind the difference between the two comparative concepts of construction-functions and construction-strategies (Croft 2022; Haspelmath 2021). Construction-functions are defined by their functions, construction-strategies by their formal properties. Construction-functions may be expressed by several strategies, e.g., a partitive construction can be expressed by a genitive strategy (Italian *delle ragazze* [GEN.DEF girl.PL] ‘[some] girls’), while in construction-strategies additional meanings and coexpression patterns come into play. Invenitive-locational constructions are indeed construction-strategies rather than construction-functions because they can be investigated from the point of view of the coexpression patterns that pertain to verbs with the meaning FIND. Moreover, there are cases in which a verb with the meaning FIND is the only strategy used in existential constructions (1).

- (1) Pite Saami (Uralic; Wilbur 2014: 234)
- | | | | |
|-----------------|---------------|-----------|---------------|
| <i>váre-n</i> | <i>gävdnu</i> | <i>aj</i> | <i>juomo</i> |
| mountain-INE.SG | exist.3PL.PRS | also | sorrel.NOM.PL |
- ‘There is sorrel in the mountains, too.’

Pite Saami, alongside the copula *árrot*⁴ ‘to be’, also has an existential verb which derives from the verb *gävdnat* ‘to find’, much like its Swedish counterpart, where the verb *finna* ‘to find’ derives the existential *det finns* ‘there is’ (Joshua Wilbur, p.c.). Such cases of middle-marked FIND-verbs are also mentioned by Gaeta (2023: 113). Gaeta justifies such dynamic verbs with the meaning FIND, which, by inference, acquire a deictic value, as being used in existential constructions through “the conventionalization of a middle-passive or of a reflexive-anticausative construction containing change-of-place verbs (especially achievements)”.

Gaeta does not single out FIND-based constructions, but his differentiation of a semasiological versus an onomasiological approach for constructions in general (cf. Geeraerts 2010) is also valuable to understand why inventive-locational constructions can be identified as a comparative concept. In a nutshell, if we ask “Which morphosyntactic strategies express a locational function?” we can answer, e.g., “BE-copulas, posture verbs, and inventive verbs as well as other kinds of copulas and the so-called zero-copulas” – we now have a clearer idea of what a locational construction-function is. If, on the other hand, we ask “Which additional meanings do verbs with the meaning FIND have?” we can answer “Telic meaning, mirative meaning, and locational meaning when such verbs are morphologically or analytically marked, and their primary meaning is bleached” – this last point provides a clearer idea of what an inventive-locational construction-strategy is. In turn, the inventive construction is itself a comparative concept because it has a functional component and can be applied to cross-linguistic investigations. To understand why the inventive construction can function as a comparative concept, we first need to understand what kind of clause constructions are meant, starting with the broad group of constructions that fall under nonverbal predication.

1.3 Earlier research on nonverbal clause constructions, copulas, and locational constructions

Nonverbal clause constructions are often also called nonverbal predication or copula clauses (Declerck 1988; Hengeveld 1992; Mikkelsen 2011; Roy 2013) and are constructions that lack a typical verb (Haspelmath 2022). A typical verb can be defined as a semantically full verb that describes a happening or an action. Conversely, nonverbal predication usually features a copula – an atypical verb that only indicates a stative link between two arguments. However, as Haspelmath (2022) discusses, nonverbal clause constructions can also lack an overt

⁴ When inflected, this verb has a suppletive *l-* stem (Wilbur 2014).

copula, and the class of ‘atypical verbs’ is not necessarily limited to copulas. In my opinion, this class can be extended also to include certain verbs that have undergone semantic bleaching and do not express their full lexical meaning. These verbs include what I call *invenitive verbs* (AREA). Haspelmath (2022) divides nonverbal clause constructions into seven types, of which only two, predlocative and existential constructions, are relevant to the thesis at hand. Paraphrasing Haspelmath, predlocative constructions are defined as clause constructions that have a subject, also called the *locatum*, which is said to be located in a place expressed by a locative phrase. On the other hand, in existential constructions the locatum is not a subject, it is discourse-new and is also called the *existent*. Existential constructions also have the function of locating this argument in a place expressed by a locative phrase. These two types of clause constructions can be considered part of a larger group of constructions called locational constructions. Haspelmath (2022) also singles out another type of construction called a *hyparctic construction*, which expresses “pure” existence, without expressing a locational function. This can therefore be considered a special case of what other authors call *existential constructions*.

An example of a predlocative construction (2) and existential construction (3) follow. Some existential constructions can also feature a specific kind of form called an *existive* (Haspelmath 2022), which does not appear in other forms of locational predication (4).

- (2) Estonian (personal knowledge)

Karu on metsas
 bear be.3SG forest.INE
 ‘The bear is in the forest.’

- (3) Estonian

Metsas on karusid
 forest.INE be.3SG bear.PART.PL
 ‘There are bears in the forest.’

- (4) Tagalog (Austronesian; consultation with a native speaker)

May kare-kare sa mesa
 EXV⁵ kare kare⁶ on table
 ‘There is kare kare on the table.’

Locative and existential constructions have been theorized by several authors (e.g., McNally 2016; Creissels 2014), and sometimes the thin line between comparative concepts and the formal configurations of these constructions has been left blurry. One example of this is provided by Creissels (2019), who refers to the first type as *plain-locational predication (PLP)* and the second type as *inverse-*

⁵ *Existive* (Haspelmath 2022) – this term is not yet established within the linguistic community.

⁶ A traditional Filipino stew.

locational predication (ILP). These two terms are proposed as comparative concepts, but they are fundamentally different from the terms *predlocative* and *existential clause construction* used by Haspelmath (2022). In fact, Creissels' terms suggest a formal distinction in the syntax of the two types of constructions, in that the difference in word order alone seems to speak in favor of a semantic difference between the two constructions. Creissels' terms hence refer to very transparent syntactic configurations, but do not fully correspond to Haspelmath's (2022), who argues that the main functional difference lies in whether the locatum is definite or not. Creissels' (2019) term *inverse-locational predication* instead allows for constructions that do not exhibit the so-called *definiteness effect* (Abbott 1992; 1993). Similarly to Koch (2012), who speaks of the two types of constructions from an information structural point of view, referring to PLP as *thematic location* and to ILP as *rhematic location*, Creissels (2019) adopts the semantic concept of *perspectivization*, which relates to *figure-ground relationships* (Talmy 1983; 2000: 311). The ground is an entity that is usually fixed in space, while the figure is more mobile. Some authors call the figure a *pivot* (Milsark 1977; Bentley et al. 2013) and the ground a *coda* (Bentley et al. 2013). Because of the figure's mobility, Creissels (2019) assumes that it has a more salient nature than the ground, making the 'figure>ground' perspectivization (PLP) the prototypical, unmarked one. This perspectivization is contrasted with the marked 'ground>figure' perspectivization of inverse-locational predication. Assuming that one of the constructions is prototypical and the other not, however, is problematic for one main reason. This assumption is in fact correlated with the assumption that, cross-linguistically, predlocative constructions are more common than existential constructions, that languages always prefer the first type of construction, and that the second type of construction is always marked. However, Haspelmath (2022) shows that in languages like Wambaya, spoken in Australia, there is no difference in marking between predlocative and existential constructions. In (5), both locative phrases are clause-final, and there is no morphological marking on the locati.

(5) Wambaya (Mirndi; Haspelmath 2022; Nordlinger 1998: 177)

- a. *Janji inyaga jalyu-ni!*
 dog.NOM that.NOM bed-LOC
 'The dog is on the bed!'
- b. *Garnguji julaji-rdarra gayangga darranggu-ni.*
 many.NOM bird-GROUP.NOM high tree-LOC
 'There are lots of birds up in the trees.'

Language-specificity comes into play in other ways, too. Some languages tend not to vary their word order, regardless of the definiteness of the locatum. This means that such languages may not allow ILP at all simply because of grammaticality constraints on how the information structural patterns are conveyed, but it does not mean that they do not allow existential constructions, as both Haspelmath and Creissels show for Mandinka (6).

- (6) Mandinka (Mande; Haspelmath 2022; Creissels 2019: 51)
Wúlôo bé yíròo kótò
 dog.DET LOC.COP tree.DET under
 ‘The dog is under the tree. / There is a dog under the tree.’

What Haspelmath (2022) considers existential constructions are therefore also constructions that do not have a marked ILP-word-order such as (7a), which has an indefinite locatum. Consequently, despite having a marked ILP-word-order, (7b) can be considered a predlocative construction because its locatum is definite.

- (7) Italian (personal knowledge)
 a. *Uccelli volano nel cielo*
 bird.PL fly.3PL in.DEF sky
 ‘Birds fly in the sky. / There are birds flying in the sky.’
 b. *Nel cielo volano gli uccelli*
 in.DEF sky fly.3PL DEF.PL bird.PL
 ‘In the sky the birds are flying. / The birds are flying in the sky.’

Definiteness will have a central role in the next Section 1.4, in which Finnish locational constructions are introduced. In Finnish, indefinite locati are in fact often marked for partitive, and this type of existential NP can also be in clause-initial position.

1.4 Subjecthood and partitives in Finnish Existential constructions

Just like the other Finnic languages (Estonian, Ingrian, Karelian, Livonian, Ludic, South Estonian, Veps, Votic), the Saami languages, and Hungarian, Finnish belongs to the Finnic genus of the Uralic language family, spoken mainly in Russia. Its geographical position allowed for an ongoing language contact situation with its European neighbors including Swedish, Russian, German, and the Baltic languages, which meant plenty of innovations for this Uralic language. However, because of its fundamentally different morphosyntactic typology, Finnish also presents some features that are typical of Finnic languages. One of these features is a grammaticalized Partitive case, which has several functions. It can in fact be used not only to indicate part-whole relations (Seržant 2021), but also expresses, e.g., temporal adverbials, a partial object vs. a total object indicated by an accusative or genitive-marked argument, and a discourse-new referent in existential and presentational clauses (Gast & Haas 2011; cf. Gaeta 2023). Presentational clauses are a formally defined clause type that has the function of introducing a new referent; however, in the Finnish tradition these clauses usually fall under the category of the Finnish Existential construction. An example of the Finnish Existential construction is given in (8a) and is contrasted with both its predlocative counterpart (8b) and a Finnish Existential construction (8c), which features a verb different from *olla* ‘to be’.

- (8) Finnish (personal knowledge)
- a. *Järvessä on kaloja*
 lake.INE be.3SG fish.PL.PART
 ‘There are fish in the lake.’
- b. *Kalat ovat järvessä*
 fish.PL be.3PL lake.INE
 ‘The fish are in the lake.’
- c. *Järvessä ui kaloja*
 lake.INE swim.3SG fish.PL.PART
 ‘There are fish swimming in the lake.’

The Finnish Existential construction has often been defined from a formal rather than a functional point of view, although what is common across these definitions is that it has the function of introducing a new referent (Ikola 1954; Hakanen 1972; VISK § 893). The formal criteria to which the Finnish Existential construction adheres constitute the following prototype (translated from VISK § 893):

- the verb ‘to be’;
- a locative phrase in thematic position;
- a subject in the partitive;
- a partitive-marked subject argument in case of negative polarity;
- absence of verb agreement;
- a discourse-new subject.

Existential constructions in Finnish do not always fully adhere to this prototype and can present one or more variations of the six criteria above. This becomes a problem when talking about the Finnish Existential sentence from a functional point of view. By changing the first criterion, the Finnish Existential sentence can have any other intransitive verb. Because the list of intransitives that can feature in this construction is very long (see Larjavaara 2019), it becomes a definitional matter whether Finnish Existential constructions are indeed always Existential constructions or something else, like presentationals. Even hands-on applied research like Ivaska (2011: 81) has shown that, in contexts such as that of second-language acquisition, the difference between Existential constructions and other clause types can be quite unclear. In those cases, criteria like subjecthood, word order, case marking, or verb agreement are not solid enough and do not suffice to effectively classify some borderline instances of Existential constructions. Tweaking one or the other criterion can however lead to more or less existential readings (Ivaska 2010; 2011).

Another problem is the very definition of subject given in the list of criteria established for the prototype. Can a “subject in partitive” be called a subject? Or should it be called something else? The discourse-new referents introduced by partitive-marked arguments have often simplistically been called subjects in the literature, even though they do not exactly behave like proper subjects in a syntactic sense. This is shown for example by Huumo (2003), who argues that in Existential constructions “[t]he participation of individual entities in the activity

is backgrounded”, and that these constructions can be interpreted from a holistic point of view. From this, it follows that there is no proper subject in existential predication, but rather an *e-theme* or *existential theme* (Huumo 2003: 462). In recent accounts, Huumo (2023) has adopted the term *existential S argument*, getting rid of the notion of subjecthood altogether. According to Huumo and Helasvuo (2015: 37), the Finnish subject usually has an unmarked, nominative morphology, triggers agreement in the predicate, and occupies a preverbal, thematic position in the sentence. This is why they suggest a new language-specific term for designating the kind of syntactic unit Existential constructions feature, and they call it an *e-NP* or *existential Noun Phrase* (Huumo & Helasvuo 2015; Helasvuo 1996). However, the term *partitive subject* is still sometimes used as a convenience term (Huumo & Lindström 2014). What all these studies agree upon is that these syntactic units have the function of introducing new indefinite referents in the discourse, and hence cannot qualify as prototypical subjects. In line with this feature, the invenitive verb *löytyä* ‘to be found’ can also be used with non-prototypical subjects, i.e., Partitive-marked e-NPs.

2 DATA AND METHODS

This section describes the data and methods used throughout this dissertation. It is further divided into three parts: data, qualitative methods, and quantitative methods. First, I will introduce the data used in the articles. These data consist of language samples for the research conducted in AREA and of Finnish corpus data for the studies conducted in QUANTI, WEB, and PARTEX. Second, I will describe the purely qualitative methods I used. These are typically used in typological research and applied to areal typological studies (AREA). Third, I will introduce the quantitative methods used in QUANTI and PARTEX. These methods are well established in corpus linguistics and use statistics to gain insight into how languages work.

2.1 Data

AREA provides a sketch of the morphosyntactic and semantic characteristics of inventive-locational constructions in the small sample of 13 European languages shown in Table 1. The languages have been chosen based on the availability of informants. Utterances were collected through elicitation from native speakers, and in some cases collected from the internet and subsequently confirmed as valid by native speakers or language experts.

Table 1 – Language sample used in Article I

Language	Language family, genus
Albanian	Indo-European, isolate
Basque	Isolate
English	Indo-European, Germanic
Estonian	Uralic, Finnic
Finnish	Uralic, Finnic
German	Indo-European, Germanic
Greek	Indo-European, Hellenic
Hungarian	Uralic, Ugric
Italian	Indo-European, Romance
Latvian	Indo-European, Baltic
Maltese	Afroasiatic, Semitic
Russian	Indo-European, Slavic
Sardinian	Indo-European, Romance

AREA shows that inventive-locational constructions are worth considering but does not make crosslinguistic claims about such constructions. That is, even though it looks at inventive-locational constructions from a typological perspective, it is not a typological study per se, since it does not employ the classical sampling criteria used in crosslinguistic surveys (Miestamo et al. 2016). The sample includes at least one representative language from each major Indo-European language group of Europe. It also has three Uralic languages (Estonian, Finnish, and Hungarian), one Semitic language (Maltese), and the language isolate Basque. The sample has also been reduced in size, because inventive-locational constructions in closely related languages (e.g., Polish and Russian) turned out to behave in similar ways, and expanding the sample size would not have added much novel information to the analysis. The examples contained in AREA have been collected from native-speaking informants or from the web. Whenever examples were collected online, their acceptability and grammaticality was checked by subsequently asking at least one language expert. Many examples are also based on my own native intuition in Italian, which takes up a large part of the analysis. All the examples used in the analysis are available in the text of AREA, as well as in an appendix at the end of the paper.

As for QUANTI, WEB, and PARTEX, I have used data from Finnish corpora. QUANTI focuses on the verb *löytyä* ‘to be found’ in Finnish journalistic texts contained in the corpus *Kansalliskirjaston lehtikokoelman (KLK) suomenkieliset lehdet*. This corpus comprises newspapers and magazines published in Finnish and collected by the National Library of Finland. The corpus search was made using the infrastructure Korp (Borin et al. 2012), and it was limited to texts from the beginning of 1990 to the end of 2000. This subcorpus, totaling around 149 million words, was chosen because the nature of this research is fundamentally synchronic. After collecting 500 random affirmative sentences with an SV word order and 500 with a VS word order, the sample was polished. This was a necessary step because not all the sentences were relevant. For example, since QUANTI investigates the nominative-partitive alternation in e-NPs contained in Finnish Locational constructions, all the negative occurrences were eliminated. Negative polarity, in fact, almost always automatically triggers the appearance of the partitive case, and this represents a bias towards how that partitive marking is analyzed. The final corpus of sentences considered for analysis consists of 779 sentences, of which 387 have SV word order and 392 VS word order.

For WEB, I used data from the corpus Finnish Web 2014 (fiTenTen2014), which I collected on the platform Sketch Engine (Kilgarriff et al. 2014). The corpus is quite large as it contains ca. 1.7 billion tokens coming from various internet text types. WEB focuses on one marginal strategy encountered in QUANTI, and hence can be considered its continuation. The sample consists of a total of 449 sentences containing the verb *löytyä* ‘to be found’ indexed for locuphoric forms, i.e., first and second persons.

In PARTEX, I collected material from Suomi24:2017, an automatically annotated corpus of around 168 million words, through the Korp infrastructure. This corpus contains messages published in 2017 in the online discussion forum

Suomi24. At the time of conducting this research, 2017 was the most recent year for which the corpus was collected, and I chose it because it represented the closest version of web-forum Finnish available. This is motivated by the synchronic nature of the article. Web-forum language is also different from journalistic texts: Because it is produced by users and is unedited, we can expect it to present a lot more variation, and to provide interesting insights into the Finnish Existential construction. For this study, I chose 10 intransitive Finnish verbs that can appear in Existential constructions, and I downloaded 10 random samples of 1000 sentences each, totaling 10,000 sentences. I then applied two different sampling methods to this sample, one based on the real frequencies of Partitive Existential constructions, and the other based on Expected Sample sizes. I will discuss these methods in Section 2.3.

2.2 A mixed methods approach

This dissertation contributes to different fields of linguistic research, and hence adopts a mixed methods approach, i.e., an approach that considers multiple perspectives for the same research questions (Johnson et al. 2007: 13; Ivaska 2020: 17). In the specific case of this dissertation, I have combined qualitative and quantitative methods. These two main types of methods complement each other: Quantitative methods are often used to provide insights on a qualitative level, too. The mixed nature of the methods employed in this dissertation does not only concern the differentiation between qualitative and quantitative methods, but also the variety of quantitative methods used. These are the following:

1. Descriptive statistics to emphasize the marginal nature of the constructions analyzed in WEB;
2. Mixed-effect logistic regression to investigate which grammatical features influence the nominative-partitive alternation in QUANTI;
3. Collostructional analysis to analyze the strength of interaction between verbs and constructions in PARTEX;
4. The novel sampling method referred to as Expected Sample size to improve the results obtained through collostructional analysis in PARTEX;
5. State-of-the-art data visualization in WEB and QUANTI.

Despite all these possible quantitative research directions, what I consider the main contribution of this dissertation has a comparative nature. AREA introduces a novel class of locational construction-strategies called invenitive constructions, and employs the qualitative methods typically used in typological research. This means that a large part of this work is descriptive and based on qualitative observations from a small set of data, which I collected from informants and language experts. I then analyzed the examples collected by considering their morpho-syntactic characteristics, to sketch a typology of invenitive constructions in the languages of my sample.

Similarly, the sample used in WEB is analyzed from a qualitative point of view. After carrying out the corpus search, I analyzed the sentences collected by looking at their pragmatic and morphosyntactic features. Since the sample was quite small in comparison to the large corpus from where it was taken, the quantitative part of this article consists of a descriptive statistical outlook of the occurrence of the several verb forms analyzed.

2.3 Quantitative methods in detail

In this section, I will show in more detail the quantitative methods used in this dissertation, apart from the descriptive statistics used in WEB. Quantitative methods were used in QUANTI and PARTEX, both relating to the Finnish language and therefore dealing with language-specific constructions. QUANTI employs quantitative statistical methods to infer qualitative analyses and follows an already established trend in linguistic research (Levshina 2015; Winter 2019; Stefanowitsch 2020; Gries 2021; Ivaska 2022). In particular, the method used in QUANTI is a mixed-effect logistic model (Gries 2015). PARTEX is almost purely methodological and provides a novel sampling method based on an Expected Sample size, which is then applied to *collostructional analysis* (Stefanowitsch & Gries 2003; Gries & Stefanowitsch 2004).

The methods mentioned above will be described in the following subsections. All the statistical analyses present in QUANTI and PARTEX, as well as the visualization of the descriptive statistics present in WEB, were carried out in the R environment (R Core Team 2018).

2.3.1 Mixed-effect logistic regression models

Statistical models, especially various regression models, can be applied to large corpora of language data to gain insights into how language works, changes, develops, or varies. This line of work is established in researching grammar, especially with regard to grammatical constructions and it is in constant expansion (see, e.g., Klavan et al. 2015; Varjo & Suomalainen 2018; Klavan 2020; Lindström et al. 2021; Pook 2021; Varjo 2022; Ivaska 2022).

An overview of simple logistic models in corpus linguistics is Speelman (2014). In regression analysis, a numeric response variable is predicted based on one or more predictor variables. In simple logistic regression analysis, the response variable can also be a categorical variable, which makes this method suitable for linguistic analysis. Multiple logistic regression models predict the response variable based on the simultaneous effect of two or more fixed-effect predictor variables. In this case, the predictors are often categorical. Finally, mixed-effect logistic regression models also introduce random effects in the picture, alongside fixed-effect predictors. In QUANTI, we used mixed-effect logistic regression to model the subject case alternation in Finnish sentences containing the verb *löytyä* ‘to be found’, as a function of both fixed-effect and random-effect predictors.

2.3.2 Collostructional analysis

Collostructional analysis is a quantitative method introduced twenty years ago and revised a couple of times during the last two decades (Stefanowitsch & Gries 2003; see also Gries & Stefanowitsch 2004; Gries 2019). This method is based on the core ideas of Construction Grammar (e.g., Lakoff 1987; Goldberg 1995), according to which a linguistic construction is “a pairing of form with meaning/use such that some aspect of the form or some aspect of the meaning/use is not strictly predictable from the component parts or from other constructions already established to exist in the language” (Goldberg 1996: 68). While most authors usually consider constructions to be only clause constructions in a strict sense (i.e., larger syntactic units), Construction Grammar postulates that any linguistic pattern can be a construction, even words or morphemes, but also that constructions are unique in that their meaning cannot be predicted based on the smaller linguistic units that form them.

In corpus linguistics, collocational analysis is the investigation of either a certain node word in its context (e.g., Oh 2000) or of the frequent words that can appear in the vicinity of a node word, i.e., its collocates (e.g., Kennedy 1991). Collostructional analysis is a type of collocational analysis that measures the degree to which different lexemes (i.e., words) are attracted to or repelled by a certain construction. Its strong point lays in the capacity to distinguish construction-specific typicality from construction genericity by relating the number of co-occurrences of the word and the construction to the general number of occurrences of both of them. Collostructional analysis considers specific constructions, differentiating between the several possible functional configurations that can be assigned to a certain formal configuration. More concretely, collostructional analysis can distinguish between, e.g., the English past participle construction and the past-tense construction, both represented by the formal configuration [V-*ed*], while collocational analysis cannot (Stefanowitsch & Gries 2003: 214). This is precisely the reason why I chose collostructional analysis as a method of investigation for PARTEX, which focuses on the Finnish Existential Partitive construction. In Finnish, the Partitive case is polyfunctional and the fact that a partitive-marked NP can appear as a collocation of a certain existential verb does not guarantee that said NP is the e-NP (Huomo & Helasvuo 2015) of the construction studied. As my study showed, many of the NPs resulting from the corpus search in PARTEX had indeed other functions, such as temporal functions, and required a significant amount of manual polishing of the corpus data.

2.3.3 Expected Sample size

The ideal sample of observations extracted from a corpus and analyzed by means of collostructional analysis is a sample of observations that all represent a certain construction. In the case of PARTEX, the studied construction is the Finnish Existential Partitive construction. Ideally, if we could instruct the corpus to search only for examples in which there is a partitive-marked NP that functions as an

e-NP, i.e., the subject-like element of the Finnish Existential construction, we could have a clear picture of how many of these sentences there are on a corpus level, and we could see which verbs (i.e., *collexemes*) are more strongly associated with the construction at hand. This is, however, impossible to achieve, since the Finnish partitive case can express a variety of functions that do not necessarily appear in the Finnish Existential construction. Because of this problem, the collected samples must be small enough to be manually polished, to rule out all the example sentences that do not represent the construction at hand.

In PARTEX, I chose 10 Finnish verb that can appear in the Finnish Existential Partitive construction. For each verb, I have extracted from the corpus a random sample of 1000 sentences that satisfied the typical criterion of the Finnish Existential Partitive construction: absence of verb agreement (verb in 3SG) and affirmative polarity. This search yielded both sentences with nominative-marked NPs – as either subjects of the verb or e-NPs – and sentences with partitive-marked e-NPs. After isolating the sentences that contained partitive-marked e-NPs and eliminating the ones where partitive-marked NPs belonged to different constructions, I have applied collostructional analysis to this reduced sample size. However, on a whole-corpus level, the frequencies of the 10 verbs differed greatly from one another, and it is self-evident that the reduced sample provided a biased view of the Finnish Existential Partitive construction, especially since the aim of the research at hand is to determine which existential verbs are more strongly associated with said construction. The corpus-level information about the occurrence frequencies of the single verbs used in the studied construction inevitably slipped away. To overcome this obstacle, I have devised a sampling method based on simulated occurrence frequencies of each verb, considering their corpus-level presence. I based this sampling method on real observed frequencies of the verbs, taken from the reduced sample (1000 sentences). I called the resulting number the verb's Occurrence Frequency (OF). Each verb also has an Absolute Frequency (AF), which is the total number of occurrences of the verb in the whole corpus, and a Relational Frequency (RF), which is the number of occurrences of the verb within a specific corpus search, which has been tailored for yielding occurrences of the verb in a specific construction (the Finnish Existential Partitive construction). For example, the verb *löytyä* 'to be found', has an Absolute Frequency of 116,068 observations, a Relational Frequency of 72,276 observations (out of 116,068, where the formal search criteria of the construction at hand were fulfilled), and an Occurrence Frequency of 490 observations (out of the sample of 1000 observations, which all fulfilled the formal search criteria of the construction). From these frequencies, we can calculate the Expected Sample size (ES), which results from the following proportion:

$$AF : RF = ES : OF$$

And hence:

$$ES = AF \times OF / RF$$

In the case of *löytyä*, $ES = 116,068 \times 490 / 72,276 = 787$ (rounded). This resulting number tells us that 787 is the ideal sample size of sentences we should analyze to get the Occurrence Frequency observed for *löytyä*. This sample size is entirely hypothetical, but its strong point is that it considers the corpus-level occurrence of the verb analyzed, eliminating at least some of the bias provided by the first, reduced sampling. After running these numbers for all the verbs of the sample, I applied collocation analysis again by including their ES instead of their biased sample size.

3 RESULTS

In this section, I will introduce the features of the Finnish inventive-locational constructions, as well as the main results of the four articles that make up this study. This section ends with a discussion, which brings together the articles and highlights their interconnections.

AREA introduces a novel class of locational construction-strategies that I call inventive-locational constructions. The main goal of the study is to survey several languages spoken in Europe and prove that inventive-locational constructions are worth considering as a comparative concept through the description of the two main types of these constructions, thus, responding to Q1.

QUANTI was published before AREA was even beginning to take shape, so the terminology contained in the latter is not used. This second paper analyzes FIND-based intransitive strategies in Finnish using quantitative methods. It is the first paper to propose that these strategies be treated as copulas and argues in favor of the interchangeability of usage of the Finnish verb *löytyä* ‘to be found’ and the locational copula *olla* ‘to be’ in certain contexts. One of the main criteria adopted in the definition of inventive-locational constructions (AREA) is semantic bleaching. QUANTI dives deep into Finnish, aiming at responding to Q2.

WEB expands over one of the findings of QUANTI and responds to Q3. This study confirms that locuphoric occurrences of *löytyä* ‘to be found’ are indeed marginal, as claimed in QUANTI, and that they are mostly confined to the internet environment.

PARTEX is a corpus study that investigates the Finnish Existential Partitive construction from a quantitative point of view (Q4). The main goal is to compare the usage of the established copula-like verb *löytyä* ‘to be found’ with other traditionally considered existential verbs in Finnish. Because of problems arising from the application of collostructional analysis to restricted corpus samples, it proposes an alternative sampling method. It confirms what is claimed in QUANTI, in that the verb *löytyä* ‘to be found’ is the verb most strongly associated with the Finnish Existential construction.

3.1 Finnish inventive-locational constructions

In Finnish, the verb *löytyä* ‘to be found’ is commonly used as a locational copula, hence as an inventive-locational construction. It is an intransitive form obtained from the verb *löytää* ‘to find’ through the Uralic middle-marking morpheme *-U*⁷, a productive morpheme that can have different meanings depending on the verb. The inventive verb *löytyä*, similarly to the copula *olla* ‘to be’ and to other verbs traditionally considered existential verbs (such as *istua* ‘to sit’, *juosta* ‘to run’), can trigger nominative-partitive alternation in an argument that functions as a subject or an e-NP. It is mostly indexed for allophoric (third person) forms and marginally for locuphoric (first and second person, i.e., speech-act participant) forms.

⁷ The morpheme is capitalized because of vowel harmony.

3.2 Invenitive-locational constructions (AREA)

In the typological tradition, much attention has been brought to the distinction between language-specific categories and comparative concepts, especially through the work of linguists like Martin Haspelmath (2010; 2011; 2016; 2018), who strongly argues for the necessity of said distinction (criticized by, e.g., Lander and Arkadiev 2016). Invenitive-locational constructions are defined through a set of features that are applicable to any linguistic sample and aimed at verifying that invenitive-locational constructions exist in the languages within said sample. This makes invenitive-locational constructions a comparative concept: They have a functional component, but on a fundamental level they are formally defined.

Defining the *invenitive* verb characterizing invenitive-locational constructions is the first step towards recognizing them. This verb satisfies two criteria (borrowed from AREA):

- I. It has a root with the meaning FIND which undergoes semantic bleaching;
- II. It features a morphological or periphrastic valency- or voice-changing marker.

Additionally, when an invenitive verb is found in a locational construction, it satisfies a third criterion (also borrowed from AREA):

- III. It expresses a locational function without semantically marking a specific posture.

An example of an invenitive-locational construction is given below (9).

- (9) Italian (AREA)
- | | | | | | |
|-----------|--------------|-----------|--------------|--------------|---------------|
| <i>Il</i> | <i>gatto</i> | <i>si</i> | <i>trova</i> | <i>sull'</i> | <i>albero</i> |
| DEF | cat | MM.3SG | find.3SG | on.DEF | tree |
- ‘The cat is in the tree.’

In (9), the cat in question is a cat nobody is necessarily looking for. However, the strategy employed, very common for speakers of Italian, uses a middle-marked form of a verb with the meaning FIND. This is functional for expressing the location of the cat in the tree. It should be noted that no information is conveyed about the posture of the cat (unlike posture verbs such as ‘to sit’, ‘to lie’, and so on). The reasons why this specific strategy is used here are beyond the scope of AREA but shed light on the possibility of the beginning of a grammaticalization process. Desemanticization, also referred to as “bleaching” or semantic reduction, is in fact a key feature of grammaticalization, and is usually accompanied by extension, or use in new contexts (Heine 2017). Invenitive-locational constructions make use of a FIND-based strategy in the new context of its use as a copula. Moreover, the development of FIND-based strategies into invenitive-locational constructions adheres to the so-called overlap model (Heine 1993: 48–53). This model describes grammaticalization as a chain-like three-stage process, in which an expression is recruited for grammaticalization and then it acquires a secondary use pattern, which then replaces the original use pattern. As specified by Heine (2017: 579), in some instances of grammaticalization this secondary use pattern

does not replace the original one, resulting in ambiguity. This is why it is sometimes hard to distinguish between instances of inventive-locational constructions and instances of FIND-based strategies in which the verb is used in its original meaning, especially, it seems, when the referent being located is a movable entity (10).

- (10) Finnish
Olut löytyy jääkaapista
 beer find.MM.3SG fridge.ELA
 ‘The beer is (found) in the fridge.’

(10) is interpretable as both an instance of locational predication and a sentence in which the verb retains its original meaning FIND. In the latter case, the pragmatic context plays a big role. The sentence above might just be the answer to the question *Where is the beer (to be found)?*, which in Finnish would employ the same middle-marked form of the verb ‘to find’. For the purpose of such a study on inventive-locational constructions, these thoughts about pragmatic contexts are important, but further corpus-driven research will be needed in the future to try and assess where to draw the line between (inventive-)locational constructions and other constructions. It is interesting to consider that locational constructions are pragmatically speaking marked, because predicating about the position of something (or someone) in space essentially has the function of communicating to an interlocutor where they can find that something (or that someone). This inverted point of view regarding locational constructions could be the key to understanding why inventive-locational constructions exist in the first place, but would require substantial further research, both from a synchronic and diachronic point of view.

It is clear from the criteria above that such constructions are defined in a way that distinguishes them from other instances of locational constructions, e.g., locational constructions that employ a BE-copula (10a), a posture verb such as Finnish *maata* ‘to lie’ (10b), a specialized existive (10c), or the absence of any linking element whatsoever (sometimes also called a *zero-copula* [10d]).

- (10) a. Finnish
Olut on jääkaapissa
 beer be.3SG fridge.INE
 ‘The beer is in the fridge.’
- b. Finnish
Käärme makaa auringossa
 snake lie.3SG sun.INE
 ‘The snake is lying in the sun.’
- c. Spanish (personal knowledge)
Hay gente en la calle
 EXV people in the street
 ‘There are people in the street.’

In AREA, I investigated a small sample of European languages with the aim of analyzing their inventive-locational constructions. Table 2 groups inventive-locational constructions into two types, while the results of the analysis are shown in Table 3.

Table 2 – Inventive-locational construction types (AREA)

	Type 1: animate locatum	Type 2: inanimate locatum
Criterion 1 (semantic): concreteness, locative phrase	concrete/abstract	concrete
Criterion 2 (morpho-syntactic): indexing, verb	both locuphoric and allophoric forms (language-specific differences)	allophoric forms
Language-specific subtypes: mirativity	mirative reading possible (construction specialization)	N/A

Table 3 – Features of inventive-locational constructions in the sample (AREA)

Language	Animate locatum ⁸	Inanimate locatum	Concrete location	Abstract location	Locuphoric forms	Allophoric forms	Dedicated mirative strategy
Albanian	(+)	(+)	(+)	(+)	(+)	(+)	(-)
Basque	(-) only mirative	(+)	(+)	(+)	(-) only mirative	(+)	(+)
English	(-) only mirative	(+)	(+)	(+)	(-) only mirative	(+)	(+)
Estonian	(+) except sg	(+)	(+)	(-)	(-)	(+)	(+)
Finnish	(+) except sg	(+)	(+)	(-)	(+) marginal	(+)	(+)
Greek	(+)	(+)	(+)	(+)	(+)	(+)	(-)
German	(+)	(+)	(+)	(+)	(+)	(+)	(-)
Hungarian	(-)	(+)	(+)	(-)	(-)	(+)	(-)
Italian	(+)	(+)	(+)	(+)	(+)	(+)	(-) ⁹
Latvian	(+)	(+)	(+)	(+)	(+)	(+)	(-)
Maltese	(+)	(+)	(+)	(-)	(+)	(+)	(+)
Russian	(+)	(+)	(+)	(+)	(+)	(+)	(-)
Sardinian	(+)	(+)	(+)	(+)	(+)	(+)	(-)

⁸ In this column, Basque and English are marked (-) because they allow for an animate locatum only in their dedicated mirative strategies (e.g., *I found myself at the hospital*, **I am found at the hospital*). Similarly, Estonian and Finnish only allow animate locati if these are marked for (partitive) plural.

⁹ Even though the verb *ritrovarsi* ‘to end up (in/doing sth)’ always has a mirative or non-volitional reading, and hence could be thought of as a dedicated strategy, Italian inventives do not in principle need the additional morphemic marking *ri-* to express a mirative or non-volitional meaning. For this reason, I do not consider Italian as having a(n obligatory) dedicated mirative strategy.

Table 2 presents the two types of inventive-locational constructions, differentiated by the animacy of the locatum, or the referent being located. Such binary classification showed the most variation in the data, with the two types of constructions arranging according to two main criteria. The first criterion establishes whether the locative phrase employed is concrete or abstract, while the second criterion concerns indexing, which refers to the grammatical person expressed on the verb. Languages can either present both types of constructions or only Type 2, which is the most common type. In this type, an inanimate locatum is located in a concrete location, and the verb will consequently always present third person (allophoric) indexing. Type 2 does not contemplate mirativity, as it is a category correlated with animate referents. Type 1 has animate referents, which can consequently be located in both concrete and abstract locations (Criterion 1), and can include pronominal subjects, which correlate with indexing for both locuphoric and allophoric forms (Criterion 2). There are some remarks to be made on Type 1 because it can present language-specific variation. Finnish inventive-locational constructions are represented by the verb *löytyä* ‘to be found’. Contrary to, e.g., Italian, in which the same strategy is used for both types of inventive-locational constructions, this Finnish verb does not always behave in the same way. Within Type 1, the Finnish inventive verb is mostly indexed for third (allophoric) persons, but rarely for first or second (locuphoric) persons. These findings are confirmed by QUANTI and WEB. Moreover, mirative marking is rendered by employing a different analytical strategy altogether, which employs the transitive verb *löytää* ‘to find’ and a reflexive pronoun (11). It should also be noted that, within Type 2, compared to many other European languages, Finnish does not allow for immovable referents, such as geographical referents (cf. 12).

- (11) Finnish
Löysin itseni sairaalasta
 find.PRT.1SG self.1PX hospital.ELA
 ‘I found myself at the hospital.’

- (12) a. Italian
La Finlandia si trova in Europa
 DEF Finland MM find.3SG in Europe
 ‘Finland is located in Europe.’

- b. Finnish
 * *Suomi löytyy Euroopasta*
 Finland find.MM.3SG Europe.ELA
 * ‘Finland is located in Europe.’

Example (12b) is pragmatically odd. The only context in which it would work would be if two people were looking at a map and one of them uttered (12b) after seeing that the other person is unable to find Finland on said map (Tuomas Huumo, p.c.).

Language-specific subtypes that correlate with the mirativity of the action are not a core defining criterion of inventive-locational constructions for two main

reasons. First, when mirative readings are possible, they may employ a completely different, specialized grammatical strategy compared to their non-mirative counterparts. This is evident in languages such as Maltese, where mirative readings arise from analytical reflexive constructions, whereas languages like Sardinian do not employ any specialized strategy to distinguish between non-mirative and mirative readings. The classification of mirative-marked strategies as inventive-locational constructions is debatable, since verbs with the meaning FIND already have some degree of mirativity in their semantics: the event of finding involves a low degree of control. Finding oneself could be interpreted in a more literal sense. Nonetheless, I included such mirative-marked examples because they can formally be identical to their non-mirative counterparts. Whether they can be considered purely locational or not is indeed problematic but can be left for further research to establish. The main goal of AREA is to show that such construction-strategies do exist and that they have, at least to some extent, a locational function.

The second reason why mirativity is not a core criterion in the definition of inventive-locational constructions is the following. It can be argued that mirative readings cannot occur in Type 2 because this type features inanimate referents. Mirative readings in inventive-locational constructions concern animate referents, who suddenly realize they are in a certain location, facing a certain problem, or undergoing a certain state of mind. For this reason, if a mirative reading were to occur with an inanimate referent, this would acquire semantic properties that are typical of humans and animals. This could be the case with anthropomorphized inanimate entities in fairytales and such. One of the shortcomings of AREA concerns the way animacy is treated: as a logistic (yes/no) property rather than a hierarchy with many possible degrees on a spectrum. The discussion concerning whether, e.g., fungi and plants are to be considered animates or not is left to future research (for a reference on animacy see, e.g., Kittilä et al. 2011). In AREA, the semantic category of animates pertains to entities that have cognitive abilities and are, essentially, movable, such as people and animals. This movability could also justify why mirative readings arise.

3.3 Nominative-partitive alternation in Finnish inventives (QUANTI)

In Finnish, the inventive verb *löytyä* ‘to be found’ is extremely common in locational predication. This study substantiates this by showing quantitative evidence, by analyzing the nominative-partitive marking alternation in the NP that represents the located element, here referred to as the subject. Partitive marking is thought to trigger an existential reading, while nominative NPs can appear in both locative and existential constructions. When they appear in existential constructions, they are usually postverbal, while partitive-marked NPs may also be preverbal and yet trigger an existential reading.

Our quantitative research has shown that different variables contribute to the case marking on the (e-)NP. It also, however, showed that some variables are

associated with each other, and that such interaction modeled the nominative-partitive alternation (the response variable) better than the same variables alone. Let us look at Figure 1.

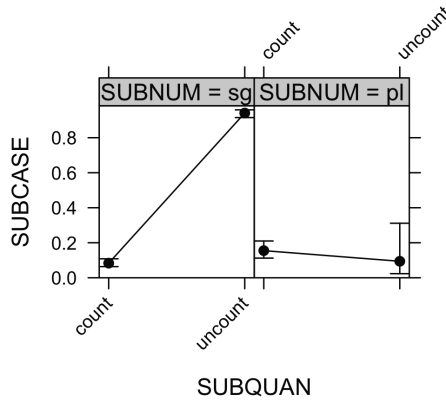


Figure 1. Interaction between number (SUBNUM) and countability (SUBQUAN)

Figure 1 shows that there is a significant interaction between the number and countability of the subject in predicting the nominative-partitive alternation (SUBCASE), coded on the y-axis. Here we can see a scale that ranges from 0 to 1, where 0 corresponds to the Nominative case and 1 to the Partitive case. This means that values at points that are closer to 0 predict for the tendency of that variable to trigger the appearance of the Nominative case, while points that are closer to 1 will predict for the Partitive case. Count nouns in the singular are more likely to trigger the appearance of the Nominative case, as they also do in the plural, while uncount nouns are more likely to do the same only in the plural, while in the singular they usually trigger the Partitive case. It should be mentioned that there were only 10 cases of uncount nouns in the plural, and that these usually indicate a definite quantity of a mass noun (e.g., *the old man's money* above).

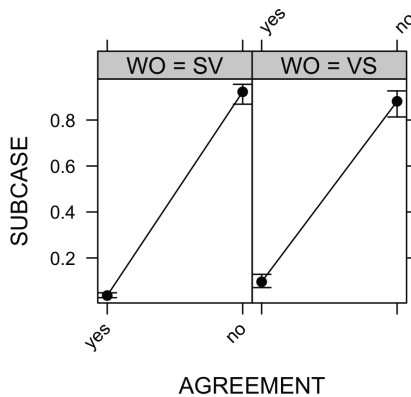


Figure 2. Interaction between agreement and word order (WO)

Figure 2 describes the interaction between agreement and word order (SV = Subject Verb; VS = Verb Subject). This interaction is not surprising, as the absence of agreement is one of the defining criteria of the Finnish Existential construction and is usually correlated with the appearance of the Partitive case. As expected, we can see that in VS sentences, the absence of agreement usually means the appearance of the Partitive case, but it also allows for more Nominative appearances compared to its SV counterpart. VS sentences with no agreement correspond to what is usually undoubtedly an Existential construction (in a language-specific context), which prototypically has a postverbal e-NP, be it flagged for the Nominative or Partitive. In (13), both a Nominative-flagged and Partitive-flagged e-NP make their appearance.

- (13) *Siitä löytyy myös urheiluseurojen ja kylätoimikuntien yhteistiedot sekä joitakin maalaiskunnan nähtävyyksiä*
 3SG.ELA find.MM.3SG also sport.club.PL.GEN and
 village.committee.PL.GEN contact.information.PL and
 some.PL.PART.ENCL rural.community attraction.PL.PART
 ‘There is also contact information for sports clubs and village committees as well as some attractions in the rural community.’ (Basile & Ivaska 2021: 28)

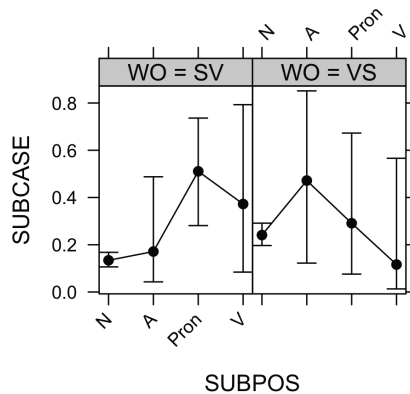


Figure 3. Interaction between part of speech (SUBPOS) and word order

Because most of the subjects (or e-NPs) of the sample are represented by nouns, part of speech and word order do not correlate in a statistically significant way. Despite this, it is interesting to notice that, for example, when the subject is a pronoun, it is more likely to appear flagged for the Partitive case in SV sentences compared to VS sentences. This could be due to the fact that pronouns represent something already mentioned before in discourse, and with a typical VS configuration in Existential constructions, which have the function of introducing a new referent into discourse, they would probably appear in the Nominative and be followed by a relative clause (14). On the other hand, a newly introduced pronominal referent in SV sentences appears flagged for the Partitive, as it could be

interpreted as referring to an open, indefinite subset of previously mentioned referents. This subset is perceived as new and triggers an existential reading (15).

(14) *Varmasti löytyy joku, joka lähtee sitä viljelemään.*
 surely find.MM.3SG someone RELP go.3SG 3SG.PART farm.INF.ILL
 ‘Surely there will be someone who starts farming it.’ (Basile & Ivaska 2021: 29)

(15) *Niitä löytyy myös Sri Lankasta.*
 3PL.PART find.MM.3SG also Sri Lanka.ELA
 ‘They are also found in Sri Lanka.’ (Basile & Ivaska 2021: 29)

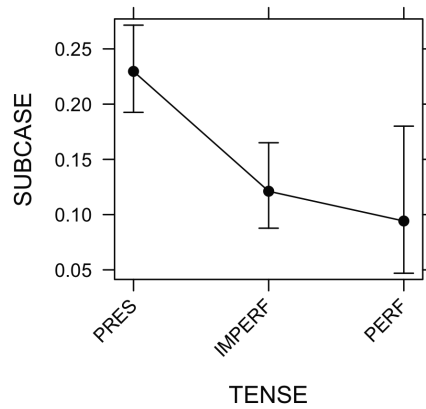


Figure 4. The role of tense in predicting case marking

Looking at Figure 4, we can draw some predictable conclusions. Tenses that refer to past events are usually used in narrative contexts, where the events depicted are finished, telic, and hence definite (VISK §1531; §1538). On the contrary, the Present tense tends to simply describe an ongoing, atelic action and, in the case of a verb like *löytyä*, which is similar to a grammaticalized copula, the presence of something or its location in space. This fact raises the likelihood of having an existential reading, which correlates with the likelihood of having a Partitive-flagged NP. This also means that, when used in the Imperfect or Perfect tense, the verb *löytyä* tends to retain its original meaning and express the result of an actual search (16).

(16) *Etsinnöissä hänen pyöränsä löytyi läheisen koulun pihasta.*
 search.PL.INE 3SG.GEN bicycle.3PX find.MM.PRT nearby.GE
 school.GEN yard.ELA
 ‘During the search, her bicycle was found in the yard of the nearby school.’ (Basile & Ivaska 2021: 31)

We also found that the lemma of the subject or e-NP has a statistically significant role in predicting its Nominative-Partitive alternation. For example, two of the most frequent lemmas in the sample, *ruumis* ‘body, cadaver’ (8 times) and *mies* ‘man’ (6 times), appear in the Nominative. This is not surprising, since these two lemmas usually appear in contexts that describe a finite event (e.g., the finding of a dead body) rather than simply conveying a locational function (17). As for Partitive-marked NPs, two of the most common ones unsurprisingly refer to uncount nouns: *työ* ‘work’ (9 times) and *raha* ‘money’ (6 times). In such cases, it is semantically more likely for the verb *löytyä* to simply convey the presence or the location of certain referents (18).

(17) a. *isän ruumis löytyi ratin takaa*
 father.GEN body find.MM.PRT.3SG steering.wheel.GEN behind.ELA
 ‘The body of the father was found behind the wheel.’ (Basile & Ivaska 2021: 33)

b. *Kuollut mies löytyy puistonpenkiltä*
 dead man find.MM.3SG park.bench.ABL
 ‘The dead man is on the park bench.’ (Basile & Ivaska 2021: 33)

(18) a. *Töitä löytyy keittiön puolelta.*
 work.PL.PART find.MM.3SG kitchen.GEN side.ABL
 ‘There is work in the kitchen sector.’ (Basile & Ivaska 2021: 33)

b. *palloiluun kyllä löytyy vain lisää rahaa.*
 ball.game.ILL indeed find.MM.3SG only more money.PART
 ‘There is indeed only more money for ball games.’ (Basile & Ivaska 2021: 33)

In this paper, the verb *löytyä* is found often to work as a substitute for the copula *olla* ‘to be’. Since this work was published before I got the idea for AREA, where notions such as semantic bleaching and the copular function of FIND-based strategies are central, we do not refer to *löytyä* as an invenitive verb. What follows is that not all the examples included in the paper can be considered invenitive-locational constructions (19).

(19) *Poliisi on vihdoin päässyt murtomiehen jäljille,*
 police be.3SG finally reach.PART burglar.GEN trace.PL.ALL
ja Ukon rahatkin löytyvät.
 and old.man.GEN money.PL.ENCL find.MM.3PL
 ‘The police have finally traced the burglar, and the old man’s money was found.’
 (Basile & Ivaska 2021: 24)

Example (19) is open to interpretation, as it could have a locational function. However, given the context, it is more likely that the verb here retains its original meaning. The police in the sentence are in fact actively searching for hints and end up finding the money. The verb at the end of the example represents a middle-marked impersonal construction with a telic reading rather than an invenitive-locational construction.

3.4 Marginal FIND-based strategies in Finnish: Internet contexts (WEB)

This paper is tied to the previous one, in that its starting point is a marginal example of *löytyä*-based constructions. This example represents a hapax in the sample used in QUANTI (20).

- (20) *Mistä löyd-y-t prinssini, 44–50-v. fiksu, pitkäkkö,*
 where.ELA find-MM-2SG prince.1PX 44–50-y.o. smart tallish
ulkonäkö ok, pilke silmäkulmassa, lenkkeilet ja
 appearance ok twinkle eye.corner.INE jog.2SG and
tanssit
 dance.2SG

‘Where are you my prince, 44 to 50 years old, smart, tallish, good looking, with a twinkle in your eye, you who like to jog and dance.’ (Basile and Ivaska 2021: 18)

(20) is the only instance in which the verb *löytyä* is found indexed for a person different than the third person (singular or plural). I will refer to third persons as *allophoric* forms and to first and second persons as *locuphoric* forms. Because locuphoric forms of the verb *löytyä* are not common, in QUANTI they were disregarded. WEB confirms the claim of marginality of such locuphoric forms by providing corpus evidence for it. There are, in fact, only 449 locuphoric instances of the verb *löytyä* in the corpus, compared to the 613,650 3SG-forms. However, as Figure 5 below shows, the most common locuphoric form is not the 2SG found in QUANTI, but the 1SG, in the Present tense. This form is common because a large part of the sentences found in the sample pertain to the internet environment, where people tend to advertise themselves (21), sometimes by posting their usernames (22).

- (21) *Löydyn myös Facebookista*
 find.MM.1SG also Facebook.ELA
 ‘I am also found on Facebook./You can also find me on Facebook.’

- (22) *löydyn skypestä edelleen samalla vanhalla nimellä*
 find.MM.1SG Skype.ELA still same.ADE old.ADE name.ADE
perneri, että sinne vaan kaikki vanhat ja uudet tyypit
 USER CONJ there.ILL EMPH all old.PL and new.PL guy.PL
 ‘I can be found on Skype still under the same old name perneri, (I would like) all old and new people (to add me) there.’

Locuphoric forms of the verb löytyä in corpora

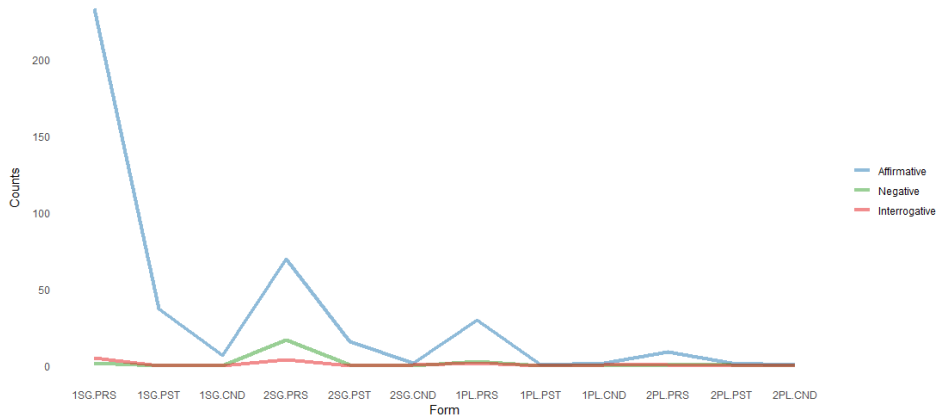


Figure 5. Locuphoric forms of the verb *löytyä* in the corpora (WEB)

While most of the examples pertain to an internet environment, the location expressed could also be a physical one. Moreover, (23) indicates the temporary location of the speaker, also favored by the choice of the verb *löytyä*, as well as by the adverbial phrase used, which provides a temporarily framed context (*iltakuuteen asti* ‘until six in the evening’).

- (23) *Löydyn Fastin pisteeltä kisojen jälkeen*
 find.MM.1SG Fast.GEN point.ABL competition.PL.GEN after
aina iltakuuteen asti.
 always evening.six.ILL until
 ‘After the competition, I am always to be found at Fast’s spot until six in the evening.’

Another interesting point brought up through the analysis of the sample used for WEB is the expression of mirativity. As we saw above, mirativity is frequently associated with FIND-based strategies (24).

- (24) *löydyn uudelleen ja uudelleen pakonomaisesti*
 find.MM.1SG again and again compulsively
tunkemassa ruokaa sisälleni
 shove.INF.INE food.PART inside.ALL.1PX
 ‘I find myself over and over again compulsively shoving food into myself.’

The speaker here finds herself doing something with low control. (24) almost seems like a copy of similar strategies in English, in which an analytical reflexive pronoun is involved in encoding a mirative event. The extent to which such a strategy can be the result of contact with a language like English, which dominates the internet environment, can only be guessed, as substantial data would be needed to corroborate such a claim.

3.5 Finnish Existential Partitive constructions and Expected Sample sizes (PARTEX)

This paper is a quantitative study of 10,000 examples from 10 different Finnish *existential* verbs. Such verbs include the invenitive verb *löytyä*, which behaves differently from the other verbs. It is worth mentioning that the article takes a language-specific point of view of Finnish Existential Partitive constructions, and that many instances of what would be considered an existential construction from the perspective of Fennistics, because it features a partitive-marked NP, could instead belong to what is commonly referred to as a presentational clause. In presentational clauses, the NP is indefinite like in existential constructions, but they are usually not considered to have a locational function.

Table 4. Results of collocation analysis applied to the Expected Sample size (ES) and to a reduced sample (adapted from PARTEX; column “English translation” added).

Verb	English translation	Expected Sample size	Occurrence Frequency	Fisher’s exact test (ES)	Fisher’s exact test (reduced sample)
löytyä	‘to be found’	787	490	4.470362e-11 *	3.531449e-53 *
sisältyä	‘to be included’	427	238	.06911321	.007108333 *
riittää	‘to suffice’	702	390	.02085609 *	5.097901e-17 *
valua	‘to flow’	350	173	.4391751	4.224982e-15 *
tulla	‘to come’	404	200	.4374663	1.53726e-08 *
ilmestyä	‘to appear’	272	130	.236718	2.20209e-30 *
pyöriä	‘to rotate/ circulate’	294	139	.149758	1.235105e-26 *
mahtua	‘to fit’	888	419	.005792884 *	2.156685e-25 *
sataa	‘to rain’	890	417	.002904667 *	7.447229e-25 *
jäädä	‘to remain/stay’	312	144	.05430832	1.090924e-24 *

Table 4 above shows the results of collocation analysis applied to the Expected Sample size and compares them to the results of collocation analysis applied to the original reduced sample. We can see that, while the results in the reduced sample vary in an unpredictable way and do not correlate with the Occurrence Frequencies of the verbs at all, by applying collocation analysis to an Expected Sample size we obtain p-values that can be interpreted more easily. The significant p-values can be ordered and can fulfill the real task of collocation analysis: determining which one of these verbs is more strongly associated with the construction under investigation.

The four verbs in boldface stand out as being the most strongly associated collexemes to the Finnish Existential Partitive collocation. If we exclude *sataa* ‘to rain’, all the other boldface verbs have, semantically speaking, something to

do with partitivity. In fact, *riittää* ‘to suffice’ and *mahtua* ‘to fit’ both refer to quantifying things in one way or another, hence it is no surprise that they are so strongly associated with this construction. What is surprising is that the verb *löytyä* ‘to be found’ is an outlier in both models, both the one based on the reduced sample and the one based on the Expected Sample size. It is, in fact, used almost 50% of the time (490/1000) with a Partitive-marked argument, and this is well reflected when testing for significance. Moreover, the invenitive verb *löytyä* is also more likely to occur with the Finnish Existential Partitive construction compared to the copula *olla* ‘to be’. Let us now look at *mahtua* ‘to fit’ and *riittää* ‘to suffice’ (25–26).

- (25) a. *Maa*ilma-an **mahtu-u** paljon *itsekeskeis-i-ä* *ego*“surffare-i-ta”.
 world-ILL fit-3SG many egotistical-PL-PART ego=surfer-PL-PART
 ‘There are a lot of egotistical ‘egosurfers’ in the world.’
- b. *Päivä-än* **mahtu-u** *suunnaton-ta* *suru-a,* *ahdistus-ta,*
 day-ILL fit-3SG enormous-PART sorrow-PART anxiety-PART
viha-a, *kiintymys-tä,* *raivo-a,* *rakkau-tta.*
 hate-PART affection-PART rage-PART love-PART
 ‘There is enormous sorrow, anxiety, hate, affection, rage, and love in every day.’
- (26) a. *katu=pöly-ä* **riittä-ä** *kaikkialle.*
 street=dust-PART suffice-3SG everywhere.ALL
 ‘There is street dust everywhere.’
- b. *Hiljaisuus-tta* **riittä-ä** *täällä* *koti=maa-ssa.*
 silence-PART suffice-3SG here home=country-INE
 ‘There is (enough/so much) silence in our home country.’

These two verbs, significantly associated with the collostruction under investigation, do not primarily have a locational function, but rather a presentational one. It is, however, interesting to observe that, while they somehow retain their semantics, they also seem to express an existential function. It is therefore no surprise that their p-values are statistically significant.

3.6 Discussion

One way of understanding how this dissertation contributes to pioneering research on invenitive constructions in Finnish and beyond is through visualizing the interactions between the articles that compose it. Figure 6 shows how the articles relate to each other.

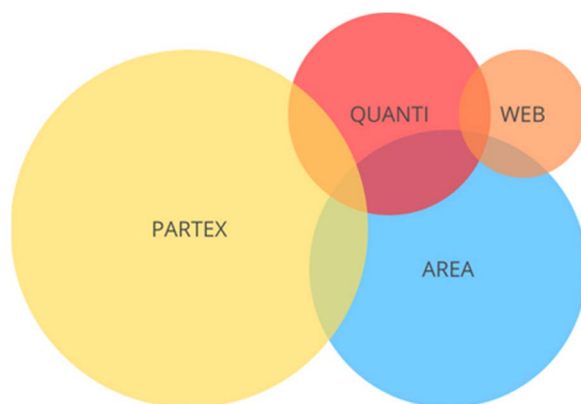


Figure 6. Interrelation of the four dissertation articles (diagram made on Canva by the author).

As can be seen in Figure 6, the articles intersect. The size of the spheres which represent the articles relate to the breadth of the research scope adopted by each article. All four articles contribute to answering the following research questions, albeit to different extents:

1. What are inventive-locational constructions and how do they differ from other locational constructions? (Q1)
2. Why are inventive-locational constructions so common in Finnish and what are their main features? (Q2)
3. What are the main features of the marginal locuphoric inventive strategies used in Finnish? (Q3)
4. What are the most typically used existential verbs in Finnish? (Q4)

Q1 is mainly answered by AREA, which presents an overview of a novel class of construction-strategies called inventive-locational constructions. Such constructions are shown to be common in Europe and presented from a synchronic point of view. Even though Article I also presents the different types of possible inventive-locational constructions, it is not a typological work in a classical sense. This is mainly because typological studies usually aim at surveying language samples that are balanced enough to include as much variety as possible, choosing from as many language families as possible from all the main geographic areas (Miestamo et al. 2016). Instead, my study lays the groundwork for future typological studies by analyzing a small convenience sample of European languages. Inventive-locational constructions have the peculiarity of expressing a locational function through a verb with the meaning FIND.

To answer Q2, the results from QUANTI, WEB, and PARTEX ought to be considered. Inventive-locational constructions appear to be widespread in the Finnish data and can therefore be regarded as productive copulas. This claim requires a couple of comments. First, it is not always easy to determine whether the verb

löytyä is used as a ‘pure’ locational copula or whether it retains its lexical semantic traits. It often triggers ambiguous readings that are open to interpretation and influenced by certain morphosyntactic traits (e.g., past tenses are more likely to trigger the FIND meaning instead of the locational copular meaning). Second, not all the criteria established for inventive-locational constructions (AREA) apply to such constructions in Finnish. The verb *löytyä* is in fact mostly used with allophoric (i.e., third person) forms, while locuphoric (i.e., first and second person) forms are marginal and limited to certain uses. Moreover, the mirative reading, which in other European languages appears to be typical of inventive-locational constructions, is present in Finnish only in a few instances of the verb’s locuphoric uses. This points towards the novelty and episodic nature of such uses, which in my opinion could well be copies of the corresponding English strategies (*to find oneself*). Perhaps this is an indicator of language change, and in the future, mirative-marked inventive strategies might become widespread because of the constant influence of English-speaking media. This has probably already been underway in the sister analytical inventive-locational construction *löytää itsensä* ‘to find oneself’, which marks a mirative event and is consistently used in other European languages (incl. English).

WEB and PARTEX further support these insights by answering Q3 and Q4. Locuphoric forms of the verb *löytyä* are indeed rare and presumably limited to some internet uses and other episodic uses, such as indicating one’s time-framed availability at a certain location. This thought contributes to answering Q1 as well, by offering an insight into what happens in other European languages. For example, in Italian, locuphoric forms of the inventive verb *trovarsi*, albeit more productive than in Finnish, may indicate the temporary presence of the located referent in a certain location (27). Of course, this also depends on other morphosyntactic and pragmatic factors since the verbs *essere* ‘to be’ and *stare* ‘to be/stay’ may also indicate temporary presence.

- (27) Italian
Mi trovo a casa
 MM.1SG find.1SG at home
 ‘I am at home (momentarily)’

By answering Q4, PARTEX also corroborates the results obtained in WEB. The verb *löytyä* is found to be strongly associated with the Finnish Existential Partitive construction, alongside a few other verbs that mostly have presentational features. The corpus search points toward the ordinariness of the verb *löytyä* occurring with the Existential Partitive construction, but it should be kept in mind that the sample used in PARTEX was obtained by narrowing down the corpus search to all occurrences of the verb in 3SG. This means that there is no way locuphoric forms of this verb could have appeared in this corpus search. However, considering the quantitative insight provided by both PARTEX and QUANTI, we can affirm that, because *löytyä* is so common in Existential constructions, its locuphoric forms must be rare even in larger samples.

Some of the interrelations between the papers presented above only arise by looking at this dissertation from a holistic perspective, taking advantage of mixed methods to investigate neighboring topics from different angles. First, the quantitative component, which is in direct communication with the qualitative observations made, helps one gain a broader view of what these inventive-locational constructions really are: In Finnish, among the long list of verbs that are traditionally considered existential, only one, *löytyä* ‘to be found’, stands out as being as strongly associated with the Finnish Existential construction as the verb *olla* ‘to be’. Second, the qualitative component of the dissertation points towards more research questions that can be answered by applying either quantitative methods or carrying out further qualitative research.

Before going to the concluding section of this thesis, it is necessary to discuss one aspect of the quantitative method used in PARTEX. Here, the p-values are not to be interpreted strictly as measures of statistical significance, but they rather mirror the relative strength of the association between each verb and the construction studied, in relation to the other verbs. This means that p-values are operationalized in an unconventional way and should be handled with care. Because multiple tests are conducted, the article should have presented significance thresholds separately corrected for each individual test (through the Holm-Bonferroni method or the Šidák correction¹⁰). Nonetheless, because of the balanced sample size between the different verbs, the relative order of the strength of association can be considered reliable. Hence, PARTEX indicates the existence of differing strengths of association between the verbs investigated and the existential construction. The frequencies presented in the paper also confirm that verb semantics intertwine with construction-level meaning, hence giving a quantitative basis to the general understanding of existential constructions, as well as to the justification for the concept ‘existential verb’.

¹⁰ I thank Unni Leino for sharing expertise over this topic.

4 CONCLUSION

The traits that distinguish inventive-locational constructions from other possible locational constructions allow for typologically-oriented research aimed at showing how such constructions work in a small areal sample of European languages. However, if we were to expand the sample and include languages from outside of Europe, it would still be possible to verify whether these constructions are found in the larger sample and how they behave.

The main difficulty a future researcher is faced with when choosing to carry out a typological survey of inventive-locational constructions in the world's languages is the availability of data. Because inventive-locational constructions are not yet well-established in linguistic research, and because they are not a linguistic category defined purely on functional grounds, they are hard to find, especially in scarcely documented languages. It could be that one or a few examples of inventive-locational constructions do appear in some reference grammars, but writing a grammatical sketch often does not leave space for marginal strategies expressing locational meaning, especially if such strategies are not established and have been neglected for most of the history of linguistic research. Moreover, inventive-locational strategies might not be regarded as conveying locational meaning in the first place. As already discussed, they are not fully grammaticalized and there is a fundamental ambiguity concerning the pragmatic function of FIND-based strategies.

It is also less likely that inventive-locational constructions appear in spoken-language corpora consisting of elicited data. Elicited sentences are usually quite simple and may focus on more “core” strategies of locational constructions as established in the grammatical tradition, such as canonical copulas, zero-copulas, posture verbs, specialized existential copulas, or negative existential markers (Veselinova & Hamari 2022). These macrocategories leave little space for marginal constructions such as inventive-locational constructions.

While inventive strategies seem to convey a locational function, in future research it would be interesting to investigate what are commonly considered locational constructions (i.e., constructions that involve a copula or some other linking element) as pragmatically expressing the meaning FIND. That is, the primary function of a locational copula is that of locating a referent in space, but what does it really mean to locate a referent in space? Could a copula like ‘to be’ pragmatically express the availability of something or someone in space, and that that something or someone is then *findable* or available (at all times or for a limited period) to the interlocutor?

To sum up, these are the main results of this dissertation. *Löytyä* ‘to be found’ behaves similarly to the copula *olla* ‘to be’ and can often substitute it. Quantitative methods (QUANTI) indicate that *löytyä* often appears in Existential constructions and becomes semantically bleached, thus, behaving like a copula and providing further evidence for the previous claim. *Löytyä* is used more often than other so-called existential verbs (except *olla* ‘to be’) in Existential constructions,

as quantitative methods (PARTEX) confirm. The association between *löytyä* and the Finnish Existential Partitive construction is strong. Furthermore, this must mean that locuphoric forms are rare, as also confirmed by QUANTI, and that there are differences in the indexing of the verb *löytyä*. In fact, it is mostly used in third persons, and WEB shows that locuphoric forms are indeed marginal. Finally, verbs like *löytyä* are not uncommon among languages spoken in Europe, and similarly have a locational function.

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EESTIKEELNE KOKKUVÕTE

Inventiiv-lokatsioonalsed konstruktsioonid soome keeles: Segametoodiline lähenemine

Sissejuhatus

Erinevates keeltes on olemas eri viise väljendamaks seda, kuidas asjad on ruumis paigutatud. Selline asukoha väljendamine toimub Euroopa keeltes peamiselt niideldada koopulakonstruktsioonide kaudu (nt eesti keele *õlu on külmkapis*), kus *olema*-koopulal on teatud lokationaalne funktsioon. Samasugust funktsiooni väljendatakse ka ilma koopulata (nt sama tähendusega venekeelses lauses *pivo v kholodil'nike*) või asendit väljendava tegusõna kaudu (nt eesti *poiss magab voodis*). On aga võimalik ka kasutada muid grammatilisi strateegiaid koopula asemel, millele keeletüpoloogiline traditsioon on siiani jätnud tähelepanu pööramata. Kutsun neid strateegiaid *inventiiv-lokationaalseteks konstruktsiooniteks* ja selles töös uurin nende käitumist soome keeles, võrrelduna teiste Euroopa keeltega. Soome keeles on selles konstruktsioonis kasutusel tegusõna *löytyä* 'leiduma', mis käitub samamoodi kui muud koopulad. Termin *inventiivne* tuleb ladinakeelsest sõnast *invenire* 'leidma'. Väitekiri koosneb sissejuhatavast osast ja neljast artiklist, millele viitan lühenditega AREA, QUANTI, WEB ja PARTEX. Siinne väitekiri on segametoodiline uurimus, mis keskendub soome keelele. See püüab vastata neljale suurele uurimisküsimusele:

1. Mis on inventiiv-lokationaalsed konstruktsioonid ja kuidas need erinevad muudest lokationaalsetest konstruktsioonitest? (K1)
2. Miks on inventiiv-lokationaalsed konstruktsioonid soome keeles nii tavalised ja mis on nende peamised omadused? (K2)
3. Mis on soome keele marginaalsete lokufooriliste inventiivsete strateegiade peamised omadused? (K3)
4. Mis on kõige tavalisemad kasutatud eksistentsiaalsed tegusõnad soome keeles? (K4)

K1 vastab artikkel AREA, mis annab ülevaate inventiiv-lokationaalsetest konstruktsioonidest Euroopa keeltes. Kuigi artikkel ei ole laiaulatuslik keeletüpoloogiline uurimus, esitab see siiski inventiiv-lokationaalseid konstruktsioone kui komparatiivseid mõisteid (*comparative concept*), mis võimaldab selliste konstruktsioonide tuvastamise ja uurimise muudes maailma keeltes.

K2 vastavad artiklid QUANTI, WEB ja PARTEX. Inventiiv-lokationaalsed konstruktsioonid soome keeles on produktiivsed ning neid kasutatakse nii erinevates morfosüntaktilistes kui ka pragmatilistes kontekstites.

K3 vastavad artiklid QUANTI ja WEB. QUANTI esitab lokufoorilised *löytyä* – tegusõnaga strateegiad ja QUANTI-artiklis esitatud tõlgendused saavad osaliselt kinnitust erinevast vaatepunktist lähtuvas artiklis WEB. Samuti leiab WEB, et

lokufoorilisi inventiivseid strateegiaid kasutatakse veebitekstides peamiselt selleks, et vältida keekekasutaja olemasolu mingil internetisaidil või veebiplatvormil.

K4 vastab artikkel PARTEX, mis uurib soome keele muid võimalikke eksistentsiaalseid tegusõnu. Artikkel leiab, et *löytyä* -teigusõna on statistiliselt palju tihedamini seotud soome osastavas käändes subjekti sisaldava eksistentsiaalse konstruktsiooniga kui muud tegusõnad. Artikkel kinnitab seega töö teistes artiklites olevaid väiteid, et *löytyä* võib mõnikord asendada koopulat *olla* 'olema'.

Taust

Siinses eestikeelses kokkuvõttes kasutan uut katusterminist *lokatsiooniline konstruktsioon* (inglise keeles *locational construction*). See hulk konstruktsioone sisaldab seega nii lokationaalseid konstruktsioone (*locative constructions*) kui ka eksistentsiaalseid konstruktsioone (*existential constructions*). Haspelmathi (2022) tüpoloogiat järgides on lokationaalsed konstruktsioonid tüüpi *õlu on külmkapis*, kus *õlu* viitab definiitsele referendile, mis tavaliselt paikneb lause alguses. See, et referent paikneb külmkapis, on uus informatsiooniosa. Eksistentsiaalset konstruktsiooni väljendavas lauses *külmkapis on õlu* lause alguses aga definiitne koht. Lauses öeldakse, mis selles kohas paikneb. *Õlu* on selles lauses seega indefiniitne referent. Esimene osa väitekirjast paigutab inventiiv-lokationaalsed konstruktsioonid muude lokationaalsete konstruktsioonide hulka ja uurib neid areaalse keeleteaduse perspektiivist.

Teine osa keskendub inventiiv-lokationaalsete konstruktsioonide kasutamisele soome keeles, analüüsib neid pigem keelespetsiifilisest vaatenurgast ega võrdle neid muude keeltega. Samamoodi kui eesti keeles, kasutatakse ka soome keele eksistentsiaalsetes lausetes osastava käändega markeeritud subjekte, mida kutsutakse ka eksistentsiaalseteks NP-deks (e-NP; vt Huumo ja Helasvuo 2015). Soome keeleteaduse traditsioonis on nimetavas ja osastavas käändes subjektide vaheldus olnud pikka aega tähelepanu keskpunktis.

Materjal ja meetod

See töö on segametoodiline uurimus soome keele inventiiv-lokationaalsetest strateegiatest. See tähendab, et nii kvalitatiivsed kui ka kvantitatiivsed meetodid on ühendatud, et püüda seletada inventiiv-lokationaalseid strateegiaid erinevatest vaatenurgadest.

Väitekirja keeletüpoloogiline osa (AREA) analüüsib inventiivseid strateegiaid 13 Euroopa keeles, mida uuritakse kvalitatiivsest vaatenurgast. Kogusin erinevate keelte kohta materjali veebist ja kontrollisin saadud infot vastavaid keeli emakeelena rääkijate käest küsides, mida nad arvavad inventiiv-lokationaalsetest strateegiatest oma keeles, või kogusin näitelauseid otse rääkijatel. Keelte valim on kirjas Tabelis 1.

Tabel 1. Analüüsiks kasutatud keelte valim (AREA)

Keel	Keelkond, genus
Albaania	Indoeuroopa, isolaat
Baski	Isolaat
Inglise	Indoeuroopa, germaani
Eesti	Uurali, läänemeresoome
Soome	Uurali, läänemeresoome
Saksa	Indoeuroopa, germaani
Kreeka	Indoeuroopa, helleeni
Ungari	Uurali, ugri
Itaalia	Indoeuroopa, romaani
Läti	Indoeuroopa, balti
Malta	Afroaasia, semi
Vene	Indoeuroopa, slaavi
Sardi	Indoeuroopa, romaani

Soome keelele keskenduvast osast (QUANTI, WEB ja PARTEX) kogusin materjali veebikorpustest. Analüüsin materjali, kasutades kvantitatiivseid meetodeid.

Artiklis QUANTI kasutasin korpust *Kansalliskirjaston lehtikokoelman (KLK) suomenkieliset lehdet*, millest võtsin 779 juhuslikku näitelause, mis sisaldavad soome verbi *löytyä* 'leiduma'. Analüüsisin valimit statistiliste meetoditega, nimelt logistilise regressiooni segamudeliteabil. See meetod võimaldab nimetatavas ja osastavas käändes subjektide uurimist soome *löytyä* -teguõnaga lauses sõltumatute muutujate põhjal (nt sõnajärg, aeg, subjekti lemma jne.).

Artiklis WEB kasutasin platvormist Sketch Engine võetud korpust Finnish Web 2014 (fiTenTen2014). Materjal koosneb marginaalsest valimist, mis sisaldab 449 *löytyä* -teguõnaga lauset, kus teguõna on lokufoorilises vormis ehk 1. ja 2. grammatilises isikus.

Artiklis PARTEX kasutasin veebikorpust Suomi24:2017, mis koosneb aastal 2017 kirjutatud Suomi24-foorumi postitustest. Sellest korpusest kogusin 10 erineva soomekeelse eksistentsiaalse teguõnaga näitelause (kokku 10 000 lauset, 1000 per teguõna), mida uurisin kollostruktsioonilist analüüsi kasutades. Kollostruktsiooniline analüüs (Stefanowitsch ja Gries 2003; Gries ja Stefanowitsch 2004) on meetod, mis võimaldab keelekonstruktsioonide (siin: eksistentsiaal-lause) ja nendega seotud sõnade (siin: eksistentsiaalsete teguõnade) omavaheliste suhete uurimist. Meetod uurib, kui tihedalt on konstruktsioonid ja sõnad omavahel seotud võrreldes muude sõnadega. Artiklis esitlen ka uut valimi moodustamise meetodit, mida kutsun *Expected Sample size* (ES). See meetod püüab arvesse võtta üksikute verbide esinemissagedused kogu korpuse ulatuses ja püüab võrrelda neid 1000 lausega valimist saadud esinemissagedustega.

Tulemused

Invenitiiv-lokationaalsed konstruktsioonid on laialt levinud Euroopa keeltes, nagu näitab AREA. Invenitiiv-lokationaalseid konstruktsioone iseloomustab invenitiivne tegusõna, millel on järgmised omadused:

I. selle sõnatüve põhitäendus on LEIDMA ja see on *semantiliselt pleekunud* (ing.k. *semantic bleaching*);

II. see sisaldab valentsi või tegumoodi muutvat morfoloogilist või perifrastilist markerit;

III. see väljendab lokationaalset funktsiooni ilma spetsiifilist asendit semantiliselt markeerimata.

Invenitiiv-lokationaalseid konstruktsioone on kaht tüüpi, mis muutuvad sõltuvalt sellest, kas kohas paiknev element (ehk *locatum*, vt Haspelmath 2022) on elus või elutu (Tabel 2).

Tabel 2 – Invenitiiv-lokationaalsete konstruktsioonide tüübid (AREA)

	Tüüp 1: elus locatum	Tüüp 2: elutu locatum
Kriteerium 1: lokatiivse fraasi konkreetsus	konkreetne/abstraktne	konkreetne
Kriteerium 2: teigusõna indekseerimine	lokufoorised ja allofoorised vormid (keelespetsiifilised erinevused)	allofoorised vormid
Keelespetsiifilised alltüübid: miratiivsus	miratiivne tähendus võimalik (oleneb konstruktsioonist)	NA

Soome keele invenitiivseid konstruktsioone, mis põhinevad tegusõnal *löytyä* 'leiduma', kasutatakse tihti lokationaalsete koopulatena. Tavaliselt ei kasutata sellistes soomekeelsetes konstruktsioonides allofoorilisi vorme ja elus referentide kohta kasutatakse neid ainult seoses inim- või loomarühmadega, kuid mitte üksikute referentidega. Üksikute inim-referentide või loom-referentide kasutamine korreleerub miratiivse tähendusega ning väljendub teise analüütilise konstruktsiooni kaudu (*löytää itsensä* 'ennast leidma'). *Löytyä*-teigusõnaga konstruktsioonides võib *locatum* esineda nimetavas või osastavas käändes markeeritud vormis, millest on erinevus lokatiivse (1a) ja eksistentsiaalse (1b) konstruktsiooni vahel.

(1) Soome

a. *Olut löytyy jääkaapista*
õlu leidma.REFL.3SG külmkapp.ELA
'Õlu leidub külmkapist.'

b. *Jääkaapista löytyy olutta*
külmkapp.ELA leidma.REFL.3SG õlu.PART
'Külmkapist leidub õlut.'

QUANTI selgitab nimetava ja osastava vaheldust *löytyä* -tegusõnaga konstruktsioonides statistiliste meetoditega. Artikkel näitab, et *löytyä* on laialt kasutatud nii lokatiivsetes kui ka eksistentsiaalsetes konstruktsioonides ning seda kasutatakse samamoodi kui koopulat *olla*. Erinevad muutujad mõjutavad nimetava ja osastava käände valimist. Näiteks subjekti loendatavus korreleerub grammatilise arvuga ning nad mõjutavad koos sõltuva muutuja ennustamist. Samuti mõjutab ennustamist kongruentsuse ja sõnade järjekorra interaktsioon, aga sõnaliigi ja sõnade järjekorra interaktsiooni mõju ei ole statistiliselt oluline. Tegusõna grammatilise aja mõju on statistiliselt oluline ja seda väidet toetab see, et *löytyä* -verbil on tavaliselt koopula tähendus olevikus, kuid minevikus säilitatakse selle leksi-kaalne tähendus ja verb määrab subjektile nimetava käände. Samuti mõjutab oluliselt subjekti lemma: teatud lemmad, näiteks *ruumis* 'laip', korreleeruvad nimetava käändega, sest nimetav kirjeldab tavaliselt finitiseid sündmusi, näiteks laiba leidumine kusagilt.

WEB kinnitab QUANTI tulemust, et *löytyä*-tegusõna lokufoorilised vormid on marginaalsed. Tegelikult on kogu korpus ainult 449 lokufoorilist esinemist, mida kasutatakse ainult teatud kontekstides. Sellistel esinemistel on enamasti spetsiifiline pragmaatiline funktsioon, sest lokufooriliste vormide kaudu reklaamivad kõnelejad oma kohalolekut internetis. Lokufooriliste vormide kasutus korreleerub miratiivsete kasutustega, millega väljendatakse kõnelejate tahtmatut osalemist teatud tegevuses või üllatuslikku/ootamatu olemist teatud kohas.

PARTEX uurib soome keele eksistentsiaalseid konstruktsioone, kus subjekt on markeeritud osastava käändega. Artikkel kinnitab, et kõikidest soome eksistentsiaalsetest tegusõnadest on *löytyä* 'leiduma' kõige rohkem seotud osastava käändega eksistentsiaalse konstruktsiooniga. Muud sageli kasutatud eksistentsiaalsed tegusõnad on *mahtua* 'mahtuma', *riittää* 'piisama' ja *sataa* 'sadama'. Tulemused kinnitavad oletust, et tegusõna *löytyä* 'leiduma' kasutatakse lokationaalse koopulana, samamoodi kui koopulat *olla* 'olema'.

Kokkuvõtteks

Sinne väitekiri esitab uue komparatiivse mõiste, mida võib kasutada tulevastes keeleteaduslikes uurimistöodes. Invenitiiv-lokationaalsed konstruktsioonid on nii-öelda konstruktsiooni-strateegiad, sest nendel on küll funktsionaalne mõõde, aga neid defineeritakse peamiselt formaalsete omaduste põhjal. 'Leiduma'-verbid lokatiivses ja eksistentsiaalses funktsioonis on Euroopa keeltes laialt levinud ning neid võib näha areaalse nähtusena. On oluline mõista, et invenitiiv-lokationaalsete konstruktsioonide defineerimine annab keeleteadlastele võimaluse väljuda areaalse lingvistika lähenemisest ning läheneda *leiduma*-konstruktsioonidele keeletüpoloogilisest vaatenurgast. See tähendab seda, et invenitiiv-lokationaalseid konstruktsioone defineerivate formaalsete kriteeriumite põhjal on võimalik välja selgitada, kas sellised konstruktsioonid on olemas näiteks Austraalia või Lõuna-Ameerika keeltes.

Esmased tulemused juba näitavad, et invenitiiv-lokationaalsed konstruktsioonid on olemas mitmetes Aafrika keeltes, nimelt mande keeltes, ning Filipiinidel

tagalogi keeles, milles inventiiv-lokationaalsete konstruktsioonide kasutus võib olla hispaania ja inglise keelega pikaajase kontakti tulemus. Mande keeltes võib nende kasutus olla ka prantsuse keelega kontakti tulemus.

Edaspidistes uurimustes võiks olla huvitav küsida, kas inventiiv-lokationaalsed konstruktsioonid grammatiseeruvad ja kuidas nad seda teevad. Rootsi keel annab hea näite sellest võimalusest, sest eksistentsiaalne konstruktsioon *det finns* on grammatiseerunud *finna* 'leidma'-teigusõnast. Kuna rootsi keel on mõjutanud soome keelt pikka aega, on võimalik et *löytyä*-teigusõna sage kasutus on seotud just sellise eksistentsiaalse kasutusega rootsi keeles ja et tulevikus samasugune kasutus grammatiseerub spetsiaalseks lokatiivseks ning eksistentsiaalseks koolaks.

SUOMENKIELINEN TIIVISTELMÄ

Inventiivis-lokationaaliset konstruktiot suomen kielessä: Monimenetelmätutkimus

Johdanto

Eri kielissä on erilaisia tapoja ilmaista, missä asiat sijaitsevat. Tällainen paikan ilmaiseminen tapahtuu Euroopan kielissä enimmäkseen niin sanottujen kopularakenteiden kautta (esim. *olut on jääkaapissa*), joissa *olla*-kopulalla on sijaintia ilmaiseva funktio. Samanlaista funktiota voidaan ilmaista myös ilman kopulaa (esim. samamerkityksellisessä venäjänkielisessä lauseessa *pivo v kholodil' nika*) tai asemaa ilmaisevan verbin kautta (esim. suomen *poika nukkuu sängyssä*). Kopulan sijaan on kuitenkin myös mahdollista käyttää muita kieliopillisia strategioita, joihin kieliopillinen perinne ei ole tähän mennessä kiinnittänyt huomiota. Kutsun näitä strategioita *inventiivis-lokationaalisiksi konstruktioiksi* ja tässä työssä tutkin niiden käyttäytymistä suomen kielessä muihin Euroopan kieliin verraten. Tällaisessa konstruktiossa suomen kielessä käytetään *löytyä*-verbiä, joka käyttäytyy samalla tavalla kuin muut kopulat. Termi *inventiivinen* tulee latinankielisestä sanasta *invenire* eli 'löytää'. Väitöskirja koostuu johdantokappaleesta sekä neljästä osatutkimuksesta, joihin viitataan lyhenteillä AREA, QUANTI, WEB ja PARTEX. Käsillä oleva väitöskirja on suomen kieleen keskittyvä monimenetelmätutkimus. Se pyrkii vastaamaan neljään suureen tutkimuskysymykseen:

1. Mitkä ovat inventiivis-lokationaaliset konstruktiot ja millä tavalla ne poikkeavat muista paikkaa ilmaisevista konstruktioista? (K1)
2. Miksi ovat inventiivis-lokationaaliset konstruktiot niin tavallisia suomen kielessä ja mitkä ovat niiden keskeiset ominaisuudet? (K2)
3. Mitkä ovat suomen kielen marginaalisten lokuforien inventiivisten strategioiden keskeiset ominaisuudet? (K3)
4. Mitkä ovat yleisimmät eksistentiaaliset verbit suomen kielessä? (K4)

K1:een vastaa osatutkimus AREA, joka antaa yleiskuvan inventiivis-lokationaalisista konstruktioista Euroopan kielissä. Vaikka artikkeli ei ole laaja kieli-typologinen tutkimus, se käsittelee kuitenkin inventiivis-lokationaalisia konstruktioita vertailtavissa olevina käsitteinä (*comparative concept*), mikä mahdollistaa niiden konstruktioiden tunnistamisen ja tutkimisen myös muissa maailman kielissä.

K2:een vastaavat osatutkimukset QUANTI, WEB ja PARTEX. Tulokset osoittavat, että inventiivis-lokationaaliset konstruktiot ovat produktiivisia suomen kielessä, sekä sen, että niitä käytetään erilaisissa morfosyntaktisissa ja pragmaattisissa konteksteissa.

K3:een vastaavat osatutkimukset QUANTI ja WEB. QUANTI käsittelee *löytyä*-verbin lokuforisia strategioita ja QUANTI-artikkelissa esitetyt tulokset saavat osin vahvistusta näkökulmaltaan eriävissä WEB-artikkelissa. WEB-artikkelissa havaitaan lisäksi, että lokuforisia inventiivisiä strategioita käytetään verkkoteksteissä enimmäkseen ilmaisemaan kielenkäyttäjän olemassaoloa jollakin internetin sivustolla tai verkkoalustalla.

K4:een vastaa osatutkimus PARTEX, joka tutkii niitä verbejä, joita voidaan *olla*-verbin ohella käyttää ilmaisemaan olemassaoloa osana eksistentiaalista konstruktiota. Artikkelit tuo esille, että *löytyä*-verbi on tilastollisesti assosioitu suomen partitiivisubjekteja sisältävien eksistentiaalisten konstruktioiden kanssa paljon vahvemmin kuin muut verbit. Artikkelit vahvistaa siten väitöskirjan toisissa osatutkimuksissa esitetyn tuloksen, että *löytyä* voi ajoittain korvata *olla*-kopulan.

Tausta

Tässä suomenkielisessä tiivistelmässä käytän uutta kattotermiä *lokationaalinen konstruktio* (englanniksi *locational construction*). Niinpä tällainen ryhmä konstruktioita sisältää sekä lokatiivisia konstruktioita (*locative constructions*) että eksistentiaalisia konstruktioita (*existential constructions*). Haspelmathin (2022) typologiaa noudattaen lokatiiviset konstruktiot ovat tyyppiä *olut on jääkaapissa*, jossa *olut* viittaa määräiseen tarkoitteeseen, joka suomessa yleensä sijaitsee lauseen alussa. Se, että tarkoite sijaitsee jääkaapissa, esitetään uutena tietona. Eksistentiaalista konstruktiota ilmaisevan lauseen *jääkaapissa on olut* alkuosassa on toisaalta paikanilmaus, joka ilmaisee tyyppillisesti jo tunnetun sijainnin. Lause ilmaisee sitä, mikä kyseisessä paikassa sijaitsee, ja *olut* esittelee uuden tiedon jostakin kyseisessä paikassa sijaitsevasta. Ensimmäinen osa väitöskirjaa asemoi inventiivis-lokationaaliset konstruktiot suhteessa muihin lokationaalisiin konstruktioihin ja tutkii niitä alueellis-typologisesta näkökulmasta.

Toinen osa keskittyy inventiivis-lokationaalisten konstruktioiden käyttämiin suomen kielessä, analysoiden niitä pikemminkin kielispesifistä näkökulmasta ja vertailematta niitä muihin kieliin. Suomenkielisissä eksistentiaalisissa lauseissa voidaan käyttää partitiivilla merkittyjä subjekteja, joita kutsutaan myös eksistentiaalisiksi substantiivilausekkeiksi (e-NP; ks. Huumo ja Helasvuo 2015). Suomalaisessa kielitieteellisessä perinteessä nominatiivi- ja partitiivisubjektien vaihtelu on ollut jo pitkään huomion keskipisteenä.

Materiaali ja menetelmät

Tämä työ on monimenetelmä tutkimus suomen kielen inventiivis-lokationaalisista strategioista. Se tarkoittaa, että työssä yhdistetään laadullisia ja määrällisiä menetelmiä inventiivis-lokationaalisten strategioiden selittämiseksi erilaisista näkökulmista.

Väitöskirjan kielitypologinen osa (AREA) analysoi inventiivisiä strategioita 13:ssa Euroopan kielessä ja niitä tutkitaan laadullisesta näkökulmasta. Keräsin

verkosta materiaaleja erilaisista kielistä ja tarkistin saadut tiedot kysymällä kielten äidinkielisiltä puhujilta, mitä mieltä he ovat inventiivis-lokationaalisista strategioista omilla kielillään. Joissakin tapauksissa keräsin esimerkkilauseita suoraan puhujilta. Kielten otos löytyy Taulukosta 1.

Taulukko 1. Analyysissä käytetty kielten otos (Area)

Kieli	Kielikunta, suku
Albania	Indoeurooppalainen, isolaatti
Baski	Isolaatti
Englanti	Indoeurooppalainen, germaaninen
Viro	Uralilainen, itämerensuomalainen
Suomi	Uralilainen, itämerensuomalainen
Saksa	Indoeurooppalainen, germaaninen
Kreikka	Indoeurooppalainen, helleeninen
Unkari	Uralilainen, ugrilainen
Italia	Indoeurooppalainen, romaaninen
Latvia	Indoeurooppalainen, balttilainen
Malta	Afroaasialainen, semiittinen
Venäjä	Indoeurooppalainen, slaavilainen
Sardi	Indoeurooppalainen, romaaninen

Suomen kieleen keskittyvissä osatutkimuksissa (QUANTI, WEB ja PARTEX) keräsin materiaalia verkkokorpuksista. Materiaalin analysoinnissa käytin määrällisiä menetelmiä.

Osatutkimuksessa QUANTI käytin korpusta *Kansalliskirjaston lehtikokoelman (KLK) suomenkieliset lehdet*, josta otin 779 satunnaista esimerkkilauseetta, jotka sisältävät *löytyä*-verbin. Analysoin otosta tilastollisin menetelmin, logistisen regressiosekamallin avulla. Menetelmä mahdollistaa nominatiivi- ja partitiivi-subjektien vaihtelun tarkastelun *löytyä*-verbillisissä lauseissa riippumattomien muuttujien suhteen niin, että muuttujien keskinäiset vaikutukset voidaan vakioida (esim. sanajärjestys, tempus, subjektin lemma jne.).

Osatutkimuksessa WEB käytin Sketch Engine -alustalta otettua korpusta Finnish Web 2014 (fiTenTen2014). Materiaali koostuu pienestä otoksesta, joka sisältää 449 *löytyä*-verbillistä lausetta, joissa verbi on lokuforisessa muodossa eli 1. ja 2. kieliopillisessa persoonassa.

Osatutkimuksessa PARTEX käytin verkkokorpusta Suomi24:2017, joka koostuu vuonna 2017 Suomi24-foorumille kirjoitetuista viesteistä. Tästä korpuksesta keräsin esimerkkilauseita 10:llä eri eksistentiaalisella verbillä (yhteensä 10 000 lausetta, 1000 per verbi), joita tarkastelin kollostruktioanalyysin avulla. Kollostruktioanalyysi (Stefanowitsch ja Gries 2003; Gries ja Stefanowitsch 2004) on menetelmä, joka mahdollistaa kielen konstruktioiden (tässä: eksistentiaali-lauseiden) ja niiden osana esiintyvien sanojen (tässä: eksistentiaalisten verbien)

suhteiden tarkastelun. Menetelmällä tutkitaan, kuinka tiiviisti konstruktio ja sanat ovat yhteydessä toisiinsa vertaamalla niiden yhteisesiintymistä konstruktion ja kunkin sanan kokonaisesiintymiseen. Artikkelissa esittelen myös uuden otantamenetelmän, jota kutsun nimellä *Expected Sample size* (ES). Menetelmä pyrkii ottamaan huomioon yksittäisten verbien esiintymistiheydet koko korpuukseen verraten ja vertailemaan niitä 1000 lauseotoksesta saatuihin esiintymistiheyyksiin.

Tulokset

Inventiivis-lokationaaliset konstruktio ovat yleisiä Euroopan kielissä, kuten AREA näyttää. Inventiivis-lokationaalisia konstruktioita luonnehtii inventiivinen verbi, jolla on seuraavat ominaisuudet:

I. sen sanavartalon perusmerkitys on löytää ja se on *semanttisesti haalistunut* (engl. *semantically bleached*);

II. se sisältää valenssia tai pääluokkaa muuttavan morfologisen tai perifrastisen elementin;

III. se ilmaisee lokationaalista funktiota ilman erityisen asennon semanttista merkitsemistä.

Inventiivis-lokationaalisia konstruktioita on kahta tyyppiä, jotka eroavat toisistaan sen mukaan, onko paikassa sijaitseva elementti (eli *locatum*, ks. Haspelmath 2022) elollinen vai eloton (Taulukko 2).

Taulukko 2 – Inventiivis-lokationaalisten konstruktioiden tyypit (AREA)

	Tyyppi 1: elollinen locatum	Tyyppi 2: eloton locatum
Kriteeri 1: lokatiivisen lausekkeen konkreettisuus	konkreettinen/abstrakti	konkreettinen
Kriteeri 2: verbin indeksi	lokuforiset ja alloforiset muodot (kielispesifiset eroavuudet)	alloforiset muodot
Kielispesifiset alatyypit: miratiivisuus	miratiivinen merkitys mahdollinen (riippuu konstruktiosta)	N/A

Suomen kielen inventiivisiä konstruktioita, jotka perustuvat *löytyä*-verbiin, käytetään monesti paikkaa ilmaisevina kopulina. Yleensä näissä suomenkielisissä konstruktioissa ei käytetä alloforisia muotoja, ja kun tarkoite on elollinen, niitä käytetään ainoastaan ihmis- ja eläinryhmien eikä yksittäisten tarkoitteiden kanssa. Yksittäisten ihmis- tai eläintarkoitteiden käyttäminen korreloi miratiivisen merkityksen kanssa ja ilmenee toisen analyttisen konstruktion kautta (*löytää itsensä*). *Löytyä*-verbillisissä konstruktioissa *locatum* voi esiintyä nominatiivissa tai

partitiivissa, josta riippuu eroavuus lokatiivisen (1a) ja eksistentiaalisen (1b) konstruktion välillä.

(1a) *Olut löytyy jääkaapista.*

(1b) *Jääkaapista löytyy olutta.*

QUANTI selvittää *löytyä*-verbillisten konstruktioiden eksistentiaalisten subjektien nominatiivi- ja partitiivivaihtelua tilastollisin menetelmin. Artikkelissa käy ilmi, että *löytyä* on laajasti käytetty sekä lokatiivisissa että eksistentiaalisissa konstruktioissa ja että sitä käytetään samalla tavalla kuin kopulaa *olla*. Eri muuttajat vaikuttavat nominatiivin ja partitiivin valintaan. Esimerkiksi subjektin laskettavuus korreloi kieliopillisen luvun kanssa ja ne yhdessä vaikuttavat eksistentiaalisen subjektin sijamerkintään esimerkiksi niin, että ei-laskettavat monikolliset subjektit lisäävät partitiivin todennäköisyyttä. Myös kongruenssi ja sanajärjestys korreloivat subjektin sijamerkinnän kanssa niin, että partitiivin todennäköisyys lisääntyy silloin, kun kongruenssia ei ole. Sanaluokan ja sanajärjestyksen välinen suhde ei sen sijaan nouse esiin subjektin sijamerkintään vaikuttavana tekijänä. Verbin tempuksen vaikutus nousee niin ikään esiin, mitä väitettä tukee se huomio, että *löytyä*-verbillä on yleensä kopulan merkitys preesensissä, kun taas imperfektissä leksikaalinen merkitys säilyy ja subjekti esiintyy tyypillisesti nominatiivimuotoisena. Subjektin lemmalla on silläkin merkitystä: tietyt lemmat (kuten *ruumis*) korreloivat nominatiivin kanssa, sillä nominatiivi kuvailee yleensä punktuaalisia tapahtumia, niin kuin ruumiin löytyminen jostakin paikasta.

WEB tukee QUANTI-artikkelin havaintoa siitä, että *löytyä*-verbin lokuforiset muodot ovat marginaalisia. Nimenomaan koko korpuksessa on ainoastaan 449 lokufoorista esiintymistä, joita käytetään vain tietyissä konteksteissa. Näillä esiintymisillä on useimmiten erityinen pragmaattinen funktio, sillä lokuforisten muotojen kautta puhujat mainostavat omaa läsnäoloaan internetissä tai jollakin tietyllä sivustolla. Lokuforisten muotojen käyttö korreloi miratiivisten käyttöjen kanssa, joilla ilmaistaan puhujien tahatonta osallistumista tiettyyn toimintaan tai yllättävää/odottamatonta sijaintia tietyssä paikassa.

PARTEX tutkii suomen kielen eksistentiaalisia konstruktioita, joissa subjekti esiintyy partitiivissa. Artikkelit vahvistaa sen havainnon, että *löytyä*-verbi esiintyy partitiivisubjektillisissa eksistentiaalisissa konstruktioissa enemmän kuin kaikki muut eksistentiaaliset verbit. Muita usein käytettyjä eksistentiaalisia verbejä ovat *mahtua*, *riittää* ja *sataa*. Tulokset vahvistavat oletuksen, että *löytyä*-verbiä käytetään paikkaa ilmaisevana kopulana samalla tavalla kuin *olla*-kopulaa.

Yhteenveto

Käsillä oleva väitöskirja esittää uuden vertailtavissa olevan käsitteen, jota voidaan käyttää tulevaisuudessa kielitieteellisissä tutkimuksissa. Inveniivis-lokationaaliset konstruktiot ovat ns. konstruktio-strategioita, sillä niillä on kyllä funktionaalinen ulottuvuus, mutta ne määritellään enimmäkseen muodollisten ominaisuuksiensa

pohjalta. *löytyä*-tyyppiset verbit lokatiivisessa ja eksistentiaalisessa funktiossa ovat Euroopan kielissä laajasti käytettyjä, ja niiden tällaista käyttöä voidaan pitää alueellisena ilmiönä. On tärkeä ymmärtää, että inventiivis-lokationaalisten konstruktioiden määrittely antaa kielitieteilijöille mahdollisuuden poistua alueellisen kielitieteen lähestymistavoista ja tutkia *löytyä*-konstruktioita pikemminkin kielitypologisesta näkökulmasta. Tämä tarkoittaa sitä, että inventiivis-lokationaalisia konstruktioita määrittelevien kriteerien pohjalta on mahdollista selittää, onko sellaisia konstruktioita olemassa vaikkapa Australian tai Etelä-Amerikan kielissä.

Alustavat tulokset osoittavat, että inventiivis-lokationaalisia konstruktioita on olemassa useissa Afrikan kielissä, kuten mandelaisissa kielissä, ja Filippiineillä puhutussa tagalogin kielessä, jossa inventiivis-lokationaalisten konstruktioiden käyttö saattaa olla espanjan ja englannin kielen kanssa tapahtuneen pitkäaikaisen kontaktin tulosta. Myöskin mandelaisissa kielissä niiden käyttö saattaa olla ranskan kielen kanssa tapahtuneen kontaktin tulosta.

Tulevissa tutkimuksissa voisi olla kiinnostava kysyä, kieliopillistuvatko inventiivis-lokationaaliset konstruktiot ja miten ne tekevät sen. Ruotsin kieli antaa hyvän esimerkin tällaisesta mahdollisuudesta, sillä eksistentiaalinen konstruktio *det finns* on kieliopillistunut verbistä *finna* 'löytää'. Koska ruotsi on vaikuttanut suomen kieleen pitkään, on mahdollista, että *löytyä*-verbin polyseeminen käyttö johtuu juuri siitä eksistentiaalisesta käytöstä ruotsin kielessä ja että tulevaisuudessa samankaltainen käyttö kieliopillistuu erityiseksi lokatiiviseksi ja eksistentiaaliseksi kopulaksi.

PUBLICATIONS

CURRICULUM VITAE

Name: Rodolfo Basile
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Education and degrees awarded

Master's Degree Conservatorio Statale di Musica "Nicola Sala", Benevento (Italy) Classical Guitar, 20 July 2018

Master's Degree Università degli Studi di Napoli "L'Orientale", Naples (Italy) Comparative Literature and Culture Studies, Finnish and German languages, 13 April 2018

Bachelor's Degree Università degli Studi di Napoli "L'Orientale", Naples (Italy) Comparative Language, Literature and Culture Studies, Finnish and German languages, 18 February 2015

Work experience

Jan 2018 – Freelanse translator

1.10.2021 – Junior Research Fellow in Estonian and Finno-Ugric Linguistics (workload 0.5), University of Tartu

Feb 2021 – Instructor at Communicating Science team, University of Tartu

Feb 2020 – Jun 2020 Teacher of Finnish language for foreigners (0 → A1), University of Tartu

2017 – 31.3.2020 In-house translator at Inter-LMP, d.o.o.

Sep 2018 – Feb 2019 Literary translation traineeship program at FILI (Finnish Literature Exchange), Helsinki

Sep 2017 – Dec 2017 Teaching assistant (Finnish class, teacher Emmi Pollari), University of Helsinki

Apr 2017 – May 2017 Teacher of Finnish language, Liceo Mazzini (Naples, Italy)

Sep 2013 – May 2014 Teaching assistant (Italian class, teacher Marja Härmänmaa), University of Helsinki

List of Publications

- Basile, Rodolfo & Ilmari Ivaska. 2021. Löytyä-verbin konstruktioiden yhteydessä esiintyvä subjektin sijanvaihtelu. *Eesti ja soome-ugri keeleteaduse ajakiri. Journal of Estonian and Finno-Ugric Linguistics*, 12(1), 11–39. <https://doi.org/10.12697/jeful.2021.12.1.01>
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Bakalaureusekraad, Università degli Studi di Napoli “L’Orientale”, Napoli (Itaalia)
Võrdlev keele-, kirjandus- ja kultuuriteadus, soome ja saksa keeled, 18. veebruar
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Töökogemus

Jan 2018 – Vabakutseline tõlkija

1.10.2021 – Nooremteadur eesti ja soome-ugri keeleteaduses
(koormus 0,5), Tartu Ülikool

Veeb 2021 – Instruktor Communicating Science meeskonnas, Tartu
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Veeb 2020 – Juuni 2020 Soome keele õpetaja välismaalastele (tase 0 → A1),
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2017 – 31.3.2020 Tõlkija Inter-LMP, d.o.o. juures

Sept 2018 – Veeb 2019 Kirjandustõlke praktikaprogramm FILI-s (Finnish
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Sept 2017 – Dets 2017 Õppejõu assistent (soome keele kursus, õpetaja Emmi
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Publikatsioonide loetelu

- Basile, Rodolfo & Ilmari Ivaska. 2021. Löytyä-verbin konstruktioiden yhteydessä esiintyvä subjektin sijanvaihtelu. *Eesti ja soome-ugri keeleteaduse ajakiri. Journal of Estonian and Finno-Ugric Linguistics*, 12(1), 11–39. <https://doi.org/10.12697/jeful.2021.12.1.01>
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